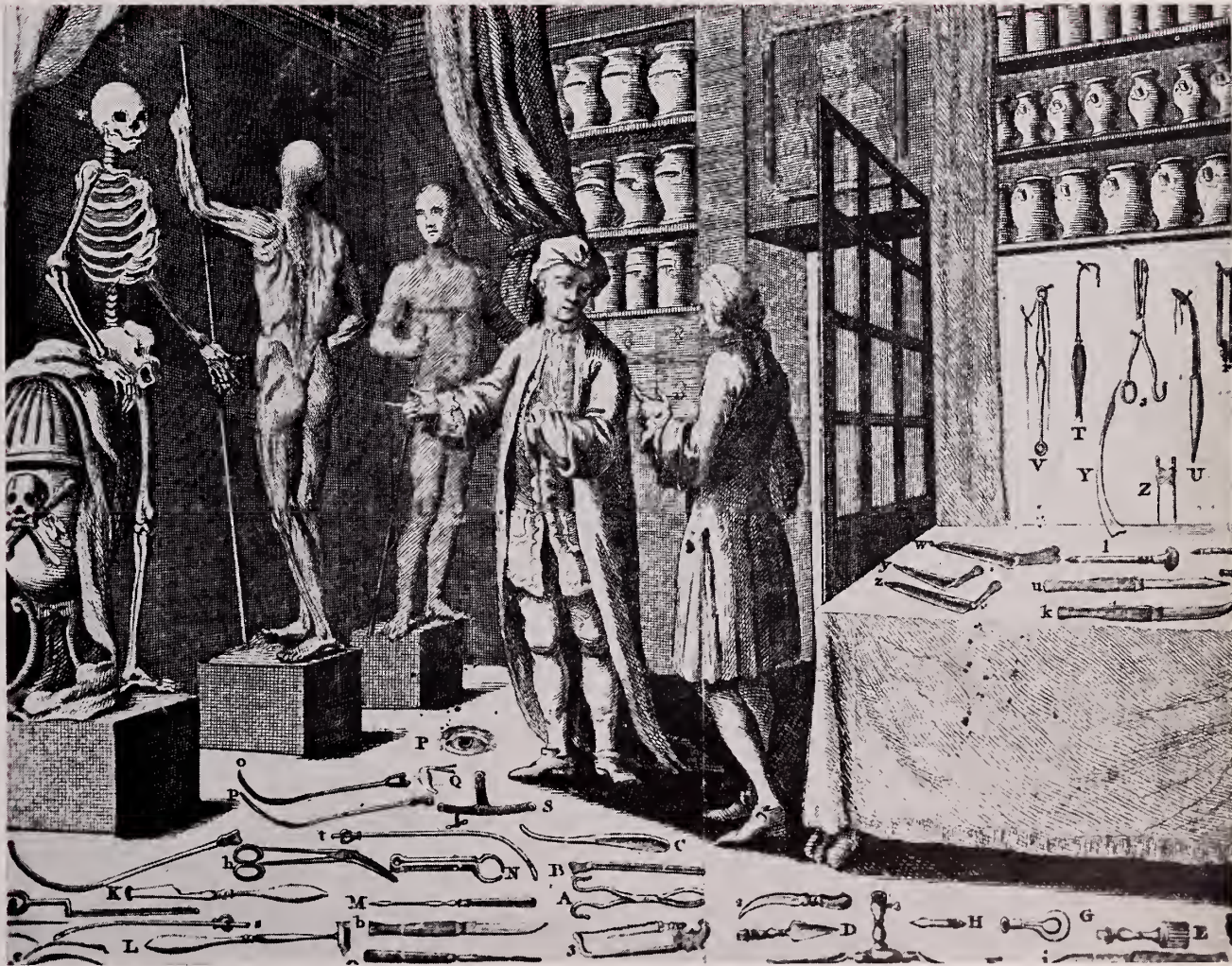


HARVARD MEDICAL ALUMNI BULLETIN

Fall, 1963



*Anatomists and Resurrectionists:
Marriage of Thieves*



photos by Gosly

Three Holes in One

Above: Building A, seen from the floor of the second below-ground level of the Countway Library. Group of workmen in right foreground, work on scaffolding above third level, and shiny truck is dwarfed by the mammoth hole. One-floor building at right is the unearthed tunnel connecting building A with building B1.

Right: Really in the cellar now, the photographer peers up at the Bulfinch columns.



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HARVARD MEDICAL ALUMNI BULLETIN

VOL. 38

FALL 1963

NO. 1

The Cover: Although anatomy and resurrection were, indeed, ugly bedfellows, their strained and often lurid affair hastened the passage of laws to legalize human dissection and the procuring of cadavers. The cover engraving, depicting an early anatomy laboratory, was originally published in London's *Universal Magazine* about 1860. Engraving courtesy of Bettmann Archive.

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LETTERS

More About the CACC

To the Editor:

I never pick up the *Harvard Medical Alumni Bulletin* but that I come away impressed, stimulated, and often amused. I was particularly intrigued in the last number to see the terrific amount of controversy your publication of Dr. Sluis' article stimulated. I doubt if I agreed with a single thought in Dr. Sluis' article, but I am glad he had the right to say it, although I am sorry he took advantage of this right to use the cover in an unjustified way in a publication of the Association that he endorses.

In any case, this kind of discussion is healthy, and I am glad the Editor doesn't exclude things because he doesn't agree with them. You have done a wonderful job on this journal. It's always fun to read. To borrow a phrase from Paul Davis' entertaining article on the medical literature — "It has a very high readability index."

CHARLES A. JANEWAY, M.D.

Thomas Morgan Rotch Professor
of Pediatrics and
Head of the Department of
Pediatrics at Children's Hospital

To the Editor:

This letter should not be construed as a defense of Dr. Sluis' views, which I find to be the typical monistic, black and white concepts characteristic of the American professional anti-communist.

But he, as an alumnus of Harvard Medical School involved in a different nonmedical area, has every right to expound his viewpoints, and the *Alumni Bulletin* has every right to publish them.

Professor Davis' letter, it seems to me, is a far more dangerous and

insidious attack on basic American freedoms than Dr. Sluis' bizarre crusade. To quote Dr. Davis, "Moreover, the actual views expressed will offend a number of friends of the school . . ." and "While I strongly approve of the evident desire of the Editor to have the *Bulletin* serve as a forum for alumni on a variety of topics, it seems to me that reasonably high standards must be maintained." In other words, only those opinions which are noncontroversial, will offend no one, and at present lie within the orthodox consensus may be published.

It is indeed ironic that some of those very "liberals" who shout most loudly for academic freedom and freedom of expression would deny these rights to those whose opinions they abhor. The test of democratic institutions lies not in allowing only consensus opinions to be aired but in letting the "extremists" have their say also.

ROBERT E. KLEIGER '60
Dept. of Nutrition
HSPH

To the Editor:

In the Summer 1963 issue of the *Bulletin*, two out of every three letters to the editor were critical of Dr. Sluis' article. One also reminded us of the late Senator McCarthy, forgetting the fact that we still may be harboring communists in the U.S. government — witness the self-confessed Swedish colonel who was said to be a spy and who, during his 15 years in this country, had access to secret documents . . . and was even given a medal by our government.

These critics have also forgotten the fact that we still enjoy academic freedom as well as freedom of the press. There have been a number of instances when these immortals have subjected us, as captive audiences, to

their assorted odoriferous articles or speeches and yet no one seemed to be exercised about it. It is poor sportsmanship on their part to pick up their marbles and go home.

Some of these critics might want to think about the following questions, some of which are my own and some are gleaned from various articles in the press.

1. Who was responsible for the withdrawal of the American troops, so that the communists got half of Germany, Austria, and Czechoslovakia?

2. — blocking military supplies to Chiang Kai-shek?

3. — blocking Gen. MacArthur from victory in Korea and attempting to discredit him?

The above are asked without ill-feeling or malice. My ancestors were subjected to massacre, cruelty, and centuries of slavery by the Ottomans and yet the love of liberty that flowed in their veins helped them to survive.

I remember two hymns taught me during childhood by the American missionaries, "America, the Beautiful," and "The Breaking Waves Dashed High on a Stern and Rock-bound Coast," . . . from when the Pilgrims landed on the New England shore. Let us not sell America short. . . .

ARISTOCLES GEORGE AUGUSTINE '26
Napanoch, N. Y.

Dr. Sluis Answers

To the Editor:

I thank you for publishing some of the correspondence which followed your publication of my article in the Spring issue of the *Harvard Medical Alumni Bulletin*. I am as encouraged as you are by the controversy caused by your publication of the article.

It is a good thing when readers are challenged to investigate and even to question their long cherished convictions.

I regret any embarrassment that I may have caused to the *Bulletin* by reproducing on our *Newsletter* the cover of the Spring issue. My sole motivation in reproducing it was its attractiveness; it was in no way intended for advertising or publicity purposes or to imply the *Bulletin's* support for the Christian Anti-Communism Crusade. This can be surmised from the fact that Dr. Schwarz reprinted the article without the cover and with a full credit line for our national mailing list of about 85,000. The reprint of the article with the cover was sent largely only to a limited and select mailing list of about 3,000 in Northern California, and for this I accept sole responsibility. Furthermore, I should like to point out that the CACC welcomes the support of individuals but does not accept the official endorsement of any organization as such; this includes the *Medical Alumni Bulletin*.

I have elected to answer two letters in some detail because of the contrast they present. One of them is from students John M. Templeton, Jr., and David H. Wegman, revealing intellectual honesty, discerning criticism, and a basic concern with the problem of communism. The other is from William Dameshek, Professor of Medicine, which reveals hardened prejudice unrelieved by any evident concern concerning the communist danger.

The criticism that my work of exposing the fallacies of communism is a short-term treatment is certainly just. I cannot accept any inference from this that it is not valuable. In medical treatment, short-term treatment is often vital as a prelude to long-term treatment. Who would decry the value of blood transfusion to the victim of a hemorrhaging peptic ulcer as a prelude to surgery? Even if the ulcer was inoperable, many physicians would still advise the transfusion. I make no claim that my work or the work of the Christian Anti-Communism Crusade provides a final or complete answer to communism.

The tone of the letter from Professor Dameshek is totally different. His letter reveals a remarkable ignorance of the subject which he discusses. He refers, for example, to the "Rev. Dr. Fred C. Schwarz." Dr. Schwarz is a medical practitioner, not a minister. He states that Dr. Schwarz

is "one of the most rabid of the anti-communists." He does not produce one item of evidence to support this statement. There is no such evidence, so he could not produce it. This statement is completely false, and he reveals himself as a victim of bias and prejudice.

It is not usually considered necessary for a medical conference in pathology to begin with a positive affirmation of the virtues of health. These are customarily taken for granted. The statements that because the article did not contain a declaration of pro-Americanism, pro-democracy, etc., that it propounds a "negative philosophy," and that the author rejects almost every ideal this country has been striving for, are ludicrous and a revelation of the preformed judgments of Professor Dameshek. I will venture to profess that my devotion to democratic principles is equal to his.

Professor Dameshek apparently cannot appreciate the role that British Guiana could play as a base of communist power to supply the communist forces of Venezuela and Brazil. If he is interested in the preservation of democratic liberties, a little attention to the techniques by which communism conquers and destroys democratic liberties might be appropriate.

A few additional observations appear pertinent. Dr. Sedgwick Mead's observations on the television debate in 1962 are irrelevant to the article but give me the welcome opportunity to express my warm appreciation for the great contribution made to our cause by the Committee against the Christian Anti-Communism Crusade. This committee arranged one hour of free, prime television time for the debate with a psychiatrist and a Unitarian minister. The psychiatrist helped us immensely, for he distorted the truth, quoted out of context, and won us a group of friends each time he opened his mouth. He presented a most interesting contrast to the minister, who was honest and fair in his opposition. I deny Dr. Mead's charge that we condemned the psychiatric profession in general and express, on the contrary, my gratitude to this colleague in particular. He demonstrated a flash of brilliance when he denied our request to buy the video tape of the debate for showing in other TV stations.

In response to Theodore S. Tapper '64, I quote from our State Department Office of Intelligence and

Research Report No. 4489R-12: "The party's leadership (Cheddi and Janet Jagan) are recognized as the representatives in British Guiana of the International Communism movement and have contacts with Communists in the United Kingdom and in the United States." I also refer him to the Robertson Report of 1954 and Dr. Jagan's own speeches and pronouncements. Dr. Jagan's speech in 1956, quoted by Eugene Lyons in his *Reader's Digest* article of April 1963, is particularly enlightening.

Dr. Mead's charge of anti-Semitism is false. On literally scores of occasions we have denounced attempts to associate Communism and Judaism. As a Christian, I must love the Jews and warmly acknowledge the great debt all Christians owe to their Jewish heritage.

I thank you for your courtesy and your high standard of editorial efforts.

JOOST SLUIS '51
Alameda, Calif.

Deadly Medical Prose

To the Editor:

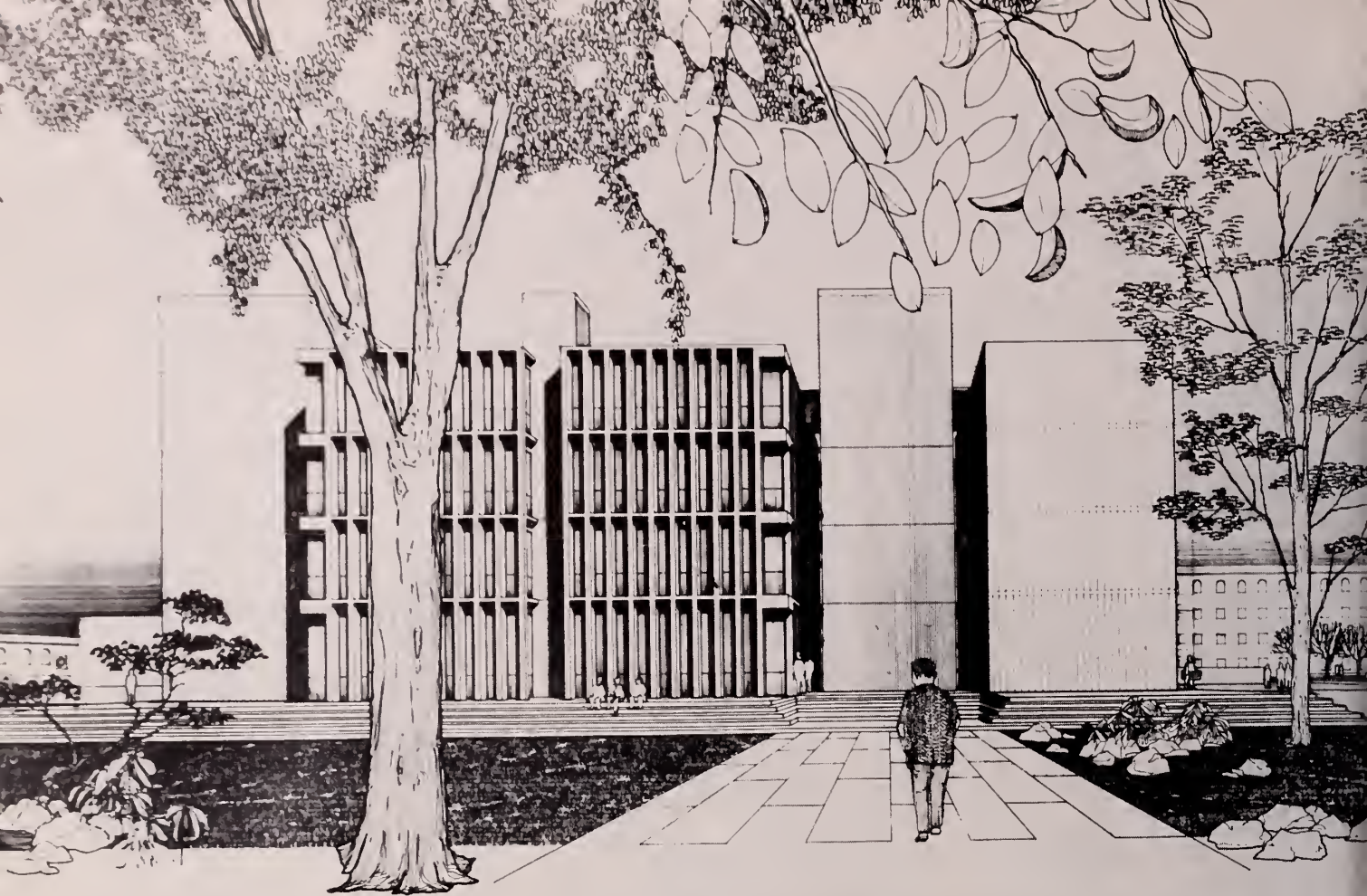
Dr. Davis's article on "Deadly Medical Prose" in the *Bulletin* should be circulated gratis to all editorial boards of medical journals. It is obviously a masterpiece.

In this regard may I point out an interesting article by John D. Farquhar in the August, 1963, number of the *A. J. D. C.*, concerning iron supplementation during the first year of life. The author plods along in the expected fashion through one thousand one hundred twenty individual bits of clinical and laboratory data, and even stoops to the indefensible dodge of chopping the bottom 75% or 80% off his graphs so that the differences between the two top lines will look more impressive.

However, at the last gasp he salvages the whole undertaking with the following redeeming statement, "... although a significant statistical difference was shown in the hemoglobin and hematocrit values by giving the iron supplement, there is no evidence that this difference has any real medical significance."

Now we are getting somewhere.

WILLIAM D. WINTER, JR., '47
Westwood, Mass.



Shields Warren Radiation Research Building, to be constructed on land formerly owned by the Boston Edison Company, between Brookline Avenue and Binney Street. The architects are Pierce and Pierce.

Along the Perimeter

Cancer Research Gets a New Strong Arm: Shields Warren Radiation Research Center.

Archimedes once said, "Give me a lever long enough, and a fulcrum strong enough, and singlehanded I can move the world." A mighty boast and one not to be lightly analogized, yet the founding of the Shields Warren Radiation Research Center promises the Harvard Medical Center and New England an impressive new fulcrum upon which to wield the powerful lever of cancer research.

As conceived years ago by Dr. Shields Warren '23, professor of pathology at Harvard and Director of Laboratories at the New England Deaconess Hospital, the Center was originally planned as an underground radiation laboratory to be constructed by the Deaconess under Joslin Park in Roxbury. Shortly before groundbreaking date, the Beth Israel Hospital and Children's Hospital

Medical Center expressed interest in joining the project; with the realization that a cooperative project could provide for a program of much greater scope than could be undertaken by a single institution came evolution of a center that will pool the intellectual and financial resources of Harvard Medical School, Children's Hospital Medical Center, the Beth Israel Hospital, and the Deaconess.

The \$2,300,000 building, to be owned and constructed by the Deaconess Hospital of prefabricated concrete and glass, will rise four stories aboveground, housing radiation equipment in two underground levels, to take advantage of the earth's natural shielding. These facilities, to be used by Children's and the Beth Israel for clinical radiation and treatment, will provide new

opportunities for research in radiology for all the hospitals associated with the Medical School. The six floors of laboratories will make available more than 30,000 square feet of floor space for work in biophysics, radiobiology, and related fields.

Named for Dr. Warren, director of the Cancer Research Institute at the Deaconess, and world-renowned authority on radiation, the Center will, in his words, "... greatly strengthen research and improve the care of cancer patients requiring radiation therapy." Although, as Dr. Warren points out, the building will not house patients, long-range plans call for an adjacent therapy building that will accept patients from the Deaconess and other hospitals for research purposes. What the building *will* eventually house, he explained, are several types of high-energy radiation equipment for experimental treatment of cancer, such as multimillion-volt x-ray machines and linear accelerators to produce high-speed electrons.

Dr. Warren has received top national and international honors for his work in radiation and its effects; the latest of these, presented to him on October 7, by Glen T. Seaborg, Chairman of the Atomic Energy Commission, is the AEC's citation for Warren's

"... meritorious contribution to the United States Nuclear Energy Program as the U.S. Representative to the United Nations Scientific Committee on the effects of Atomic Radiation. . . . His scientific knowledge, leadership, and dedicated service have contributed immeasurably to the U.S. and the world scientific community.

The research programs of the Warren Radiation Center, under the general direction of the Harvard Medical School, will be headed by Dr. Henry I. Kohn, recently named the first Alvan T. and Viola D. Fuller-American Cancer Society Professor of Radiology by Harvard. Dr. Kohn, a physician and scientist who has long studied the effects of radiation in man, comes to Harvard from the University of California Medical School where, since 1953, he was clinical professor of experimental radiology. There he concentrated largely on the effects of whole-body radiation in animals and man, problems in aging as related to radiation, the action of radio-protective drugs, and the genetic effects of radiation. He has served as secretary of the advisory committee on biology and medicine of the Atomic Energy Commission, and as advisor to the U.S. delegation of the UN's scientific committee on the effects of atomic radiation. He holds a Ph.D. degree in biology from Harvard.

The Alvan T. and Viola D. Fuller-American Cancer Society Chair in Radiology was created in 1961, following the receipt of a capital gift from the American Cancer Society and its Massachusetts Division, and was made possible by a contribution from the Fuller Foundation, established by the late Alvan T. Fuller.

Commenting on the new Center, Dr. Berry said,



Dr. Warren



Dr. Kohn

The new research center will explore the little understood changes that take place in cellular activity following exposure to radiant energy. . . . It will add to our present facilities for the treatment of selected cancer cases, for research in the more effective treatment of cancer, and for training of medical students and post-graduate students in newly developed procedures.

Groundbreaking for the Center is planned for November, 1963. It will be connected by tunnels to the Deaconess and, later, to the Children's and Beth Israel hospitals.

Six members of the Harvard Medical School faculty and one former staff member will make their way westward this November, to attend the 17th annual postgraduate assembly of the San Diego County Hospital, held the 15th and 16th. An annual gathering sponsored by the Physicians Research Foundation of the hospital, at which each of the guests will lead special sections and panel discussions on his field, it is the first that HMS has been asked to present.

Those invited include: Benjamin Castleman, professor of pathology; Edwin F. Cave, former assistant clinical professor of orthopedic surgery; Charles S. Davidson, associate professor of medicine; J. Hartwell Harrison, clinical professor of genito-urinary surgery; Langdon Parsons, clinical professor of obstetrics and gynecology; Clement A. Smith, professor of pediatrics; and Richard Warren, clinical professor of surgery.



For several years the Faculty Wives have been giving parties — for themselves, for women holding corporation appointments on the teaching staffs of the Medical or Dental Schools, and for numerous other groups. This year they have scheduled three gatherings: a tea to greet newcomers into their group, on November 12; a tea for visitors who have come to the Medical School from abroad, on December 10; and a sherry party to meet the fourth year medical and dental students and their wives, on March 30.

Program Notes

A \$1.5 million gift from the Gustavus and Louise Pfeiffer Research Foundation will enable Harvard to endow three professorships at the Medical School in the fields of pharmacology, anatomy and physiology. At the same time the Foundation announced that it will provide funds to establish three additional chairs — one each at the Stanford University School of Medicine, the University of Pennsylvania School of Medicine, and the Menninger Foundation.

It was concluded, after a two-year study of the best way the Foundation might serve its purpose of advancing medicine and pharmacy at a time when the Government is assuming major responsibility for support of medical research, that "in view of the great need for additional support for medical teaching and the need for adequate financial support of leading medical teachers . . . endowment for establishing permanent chairs in outstanding medical schools would be one of the most significant contributions which the Foundation could make in its field."

The Lockheed Leadership Fund of Burbank, California, has made a gift of \$100,000 to establish the Robert E. Gross-Lockheed Teaching, Research and Fellowship Fund at the Medical School. The Fund honors the memory of Robert E. Gross, A.B. '19, founder and, until his death in 1961, chairman of the board and chief executive officer of Lockheed Aircraft Corporation. The Fund is both an expression of Mr. Gross' lifelong interest in basic research and scientific progress and an important addition to the resources of Harvard Medicine. Because

the terms of the gift are broadly flexible, income from the Fund may always be used in whatever areas of teaching and research are most in need of support.

The Procter and Gamble Fund of Cincinnati has made a gift of \$75,000 to Harvard, as a part of the \$450,000 unrestricted grant payable over five years, to six leading medical schools — Columbia, University of Chicago, Harvard, Johns Hopkins, University of Pennsylvania, and Washington University in St. Louis. In announcing the award, Howard Morgens, president of Procter and Gamble, said that the six schools "were chosen because of the number and quality of the men they have contributed to the teaching staffs of virtually all of the nation's medical schools. We believe that support of these schools, on which other medical teaching institutions depend heavily for their teaching staffs, will help improve the teaching of medicine and increase the number of practicing physicians available to the U.S. population.

The Merck Company Foundation has been created at Harvard with a gift of \$50,000 from the Merck Company Foundation. The unrestricted gift was made in "recognition of Harvard's pre-eminence in medical education" and its many contributions to the advancement of medical science.

Editor's Note: The editors regret that in the Summer 1963 issue of the *Bulletin*, there was a printer's error in labeling the pictures of Mr. Thayer Cumings and Mr. John J. Toohy. What the book says is Mr. Toohy, is really Mr. Cumings, and vice versa.



Dr. Spector is shown here with a rare Leeuwenhoek microscope, presented to him by the Physical Laboratory of the University of Utrecht on his completion of a research project there in 1932.

The "Spectre of Anatomy" Comes to Harvard

Fondly referred to as the "spectre of anatomy" by his students at the Tufts University School of Medicine, Dr. Benjamin Spector has retired as chairman of the department of bioanatomy and has become professor, *Emeritus*, of bioanatomy and the history of medicine at Tufts. He has recently been appointed an affiliate in the department of anatomy at Harvard Medical School. Though this is Dr. Spector's first appointment to the Harvard Medical Faculty, he has been indispensable to all three Boston medical schools since 1956 as an officer of Harvard University, in the capacity of Coordinator of Anatomical Material, a position he still holds.

Since receiving his M.D. degree from New York University in 1922, Dr. Spector has been with Tufts, where he has taught not only the *anatomy* of the human body, but a deep, human respect for it, believing that the physician must understand and serve not only the physical needs but the emotional and spiritual needs of his patients as well.

Related to his humanistic outlook is Dr. Spector's vital interest in the history of medicine. He has been professor of the history of medicine at Tufts since 1939, and has, for many years, conducted Monday evening seminars for students of medical history — to promote a better understanding of man and his affairs and problems.

Dr. Spector's interest in medical history, combined with his great affection for his late wife, led to the establishment, from funds provided by members of the faculty, student body, and friends, of the *Bertha Spector Award in the History of Medicine*, at the time of Mrs. Spector's death five years ago. She held an LL.M. degree in law and contributed greatly to her husband's work in the field of law as it relates to medicine. Dr. Spector's enthusiasm for medical history has also led to his position as historian of Tufts University School of Medicine.

His many honors have included appointment by President Eisenhower as a Member of the Board of Regents of the National Library of Medicine and the presidency of the American Association for the History of Medicine. The affection and admiration he has inspired among his students at Tufts is expressed in the dedication of the 1963 yearbook and a plaque presented him by the class of 1966. (Of the latter, Dr. Spector said whimsically that he had not believed it possible to gather together "so much poetry" in one paragraph.)

At the association's annual banquet held in March, Dr. Spector, the first honorary member of the Tufts Medical Alumni Association, was named the "Mr. Chips" of the School of Medicine. He was cited as "... a scholar and an emissary of good will ... a great teacher and a great and modest gentleman."

As Dr. Joseph Garland '19 wrote in an editorial in the May 9 *New England Journal of Medicine*, Tufts' fine medical reputation owes much to such teachers as Dr. Benjamin Spector.

Library Notes

More than 40 medical librarians — the largest group of its kind ever to descend upon the Medical School — travelled from 20 corners of the earth this summer to gaze at the three-story hole which gapes at the foot of Shattuck Street.

On a side trip from the Second International Congress on Medical Librarianship, held in Washington this June, these foreign delegates came to see and discuss the plans for the Francis A. Countway Library, hoping to use them as prototypes for libraries being planned in their own countries.

Since the new Countway will be the largest university-centered library in the world, housing the more than 450,000 volumes, the visitors were particularly concerned with how it will handle this burden, which, like medical literature everywhere, will greatly expand each year. They also discussed the much-heralded telefacsimile link with the Massachusetts General Hospital, which is not economically possible at present, and the computers yet to be developed, that will condense, file, and retrieve information.



Dr. Gorini



Dr. Scott



Dr. Barlow

Honorary Degrees Awarded

It is a rather nice custom at Harvard to award honorary Harvard diplomas to men who went elsewhere to school, at the time that they receive tenure appointments.

During the September Medical Faculty meeting, President Pusey awarded three honorary Harvard degrees to members of the Medical School Faculty, calling attention to the debt Harvard owes to the many other teaching institutions whose graduates have joined the Harvard Faculties.

Dr. Luigi Gorini, American Cancer Society Associate Professor of Bacteriology and Immunology, received his doctoral degree in organic chemistry from the University of Pavia, Italy, in 1925. Because of his hostility to the Fascist régime, he was unable to continue his academic career for almost 20 years; only after WW II was he able to undertake basic research in his specialty in Paris. Dr. Gorini came to the U.S. in 1954, and to Harvard in 1957.

Dr. Jesse Fried Scott, associate professor of ecologic medicine, received his M.D. degree from Vanderbilt in 1941. He did his surgical internship at Vanderbilt and then came to M.I.T. where he did advanced training under Prof. Schmidt, preparatory to joining the new Huntington Laboratories. He has also served as assistant professor of anatomy at Harvard.

Dr. Charles Franklin Barlow, Bronson Crothers Professor of Neurology, came to Harvard from an associate professorship at the University of Chicago. He received his M.D. degree at the University of Chicago, interned at Johns Hopkins Hospital, and served at Children's Hospital as junior resident in pediatrics. It was there that he came under Dr. Crothers' influence and made neurology his specialty.

Harvard Medical Chorus

After a month of rehearsals the Harvard Medical Chorus is well into its sixth concert season. The group is now preparing for the Christmas program, to be presented December 15, 17 and 20, at the Old North Church, Museum of Fine Arts and the Gardner Museum, respectively.

The program for the three concerts reads as follows:

- "Let True Love Among Us Be" — Bergsma
- "Ave Maria" — Josquin Des Prés
- "Hymn to the Virgin" — Britten
- "Schaffe In Mir, Gott, Ein Rein Herz" — Brahms
- "Ideo Gloria in Excelsis Deo" — arranged by Kraehenbuehl
- "Gloria in Excelsis Deo" — Pinkham
- "Down in Yon Forest" — arranged by Vaughan Williams
- "Patapan" — arranged by Shaw
- "All Poor Men and Humble" — Welsh Carol
- "The Twelve Days of Christmas" — arranged by Abbott
- "The Sycamore Tree" — Warlock

In addition, tapes of three of the chorus' previous concerts will be played on WCRB radio, November 3, 10, 17 and 24. The Chorus, whose members range from doctors, dieticians, nurses, research and clinical assistants to secretaries, was established in 1958. In January it will begin rehearsing for its spring program, which is still in the planning stage.

Registration for the chorus this year is the highest in its history, having reached a total of well over 100 members. As in past concerts, a small group of voices has been selected from the group to perform some numbers separately. In this year's Christmas program, however, they will also sing with the larger group in the numbers that require two choruses.

Inside HMS:

Plus Ça Change

Fall is a time of putting things in order. Here in New England it is a time of preparing for the Winter's onslaught, of consolidating one's physical and spiritual resources to withstand the rigors of the season with preparedness; let self-assurance come in its own due time. And in the quadrangle, no less so, preparedness is the keynote. Gardeners labor, propping the supple young trees that line the balustrades with wooden supports, and studiously covering over flower beds with extra blankets, for the protection of the generations yet unborn.

In every nook and cranny of Vanderbilt Hall — home for little wonderers — gardeners of another sort prune their last year's harvest of lecture notes and miscellaneous data in a fruitless effort to concentrate that distillation of knowledge into 10 x 14 square feet of living space.

The new HMS II peers bemusedly at last year's Growth and Development notes, transcribed early one Saturday morning in a dialect midway between Gregg shorthand and Sumerian script, by some unsung scribe, and passed, hand to hand, to countless disciples. Our friend holds in his hand his copy of this document, so tenuously preserved from destruction; the immortal words of that high priest of Phenome, Genome and Surd, Claude Villee.

"Never cared much for genetics," he mutters, "but there *was* something in last month's *NEJM* about non-disjunction (or was it disjunction) and mongolism. Better save 'em." Reprieved, the notes go into the "save" pile — another victory for the *NEJM*. Nondisjunction and mongolism everywhere.

"Now what about these old Clinical Symposia," he re-mutters. "Here's one with the entire body represented as a liver cell. All the metabolic pathways, too." Doubt furrows his brow.

"Probably an oversimplification." Into the refuse pile.

Such are the meticulous decisions of judgment self-imposed upon each returning student and some hint of the rigid criteria he uses to forge his decisions.

Olympian detachment is the keynote. (Please disregard the previous keynote; it has been superseded by revised orders.) Detachment, nonchalance, aplomb — whatever you wish to call it — on the part of teacher and pupils alike. The new HMS I goes to his first anatomy lecture expecting a briefing session and pep talk on the horrors about to befall him in the dissecting rooms. What he gets is a discourse — replete with numerous lantern slides — that would scarcely be out of place in an under-

graduate Fine Arts course. George Erikson, that master of circumlocution, would rather speak, it seems on Leonardo's etchings, with the quaint Italian landscapes in the background, or about Burke and Hare, those two resourceful (if somewhat over-enthusiastic) purveyors of anatomic material to the medical schools of 18th century England. In my year I believe there was one ever-so-brief hint on the facilitation of drainage, but this was obviously an aside to the staff.

Our HMS I, not to be outdone by Dr. Erikson's casualness, enters the dissecting room with neatly pressed coat and reference volume, hands thrust deep into his pockets, ready to offer any pertinent advice and to act — if absolutely necessary — in a purely advisory capacity.

"Page 339 in Gray's looks pertinent to today's dissection. Why don't I read it aloud as we go along." He sits astride a stool and intones in a timbre that would do Dylan Thomas proud. The others listen spellbound, their chores momentarily forgotten, lost in rapture at the narrative. Work goes on apace.

Self-assurance is the keynote. Let loose on the wards, the HMS II sees his first patient, a sixtyish woman with the labored respirations, malar flush, and distended neck veins of the severe cardiac. Tenderly he lowers his titanium-plated stethoscope to her expectant chest and hears his own heart pounding away monotonously, with not even the barest hint of that rumbling crescendo murmur. But once his instructor has directed his attention to the bell and has indicated the proper place deep in the axilla, he has no difficulty whatsoever in distinguishing a split second sound, an opening snap, and a protodiastolic gallop.

"Oh yes, I hear them all now," he agrees sagely.

And soon he sees himself the future great cardiologist, pacing the wards with his train of sycophants and minions following. He dreams of leaving Harvard, making his fame in the West, and returning to amaze his former instructors. One is reminded of the apocryphal story about the great Harvard English professor, George Lyman Kittredge, who once visited the Bodleian Library at Oxford, incognito. Having asked the curator several hideously difficult questions, he was then informed that the only man in the world who could give him the answers was at Harvard, "that Kittredge fellow." Such are the fantasies of youth's imagination.

Fall is a time of putting things in order, of preparing for the winter's onslaughts. A fellow with just this idea accosted me the other day in the lobby of the Massachusetts General Hospital. Inebriated, he clasped my lapels firmly, they being the nearest stationary objects.

"Could you come to my aid with some monetary assistance?" he asked, in language which would have done credit to Budget Director Bell. Let no man assert that the spirit of autumnal husbandry and preparation exists only in the quadrangle. It exists everywhere, albeit in several altered forms; plus ça change, plus c'est la même chose.



Harvard Medical School in 1883

Diagnosis Deferred:

The Faculty Calls The Plays

Speaking of anniversaries, of which a number have been celebrated since the turn of the sixties, with others on the agenda, one is reminded that the Harvard Medical School first flung its portals wide in 1783, a hundred and eighty years ago almost to the moment, and that in its centennial year it also opened its fine new building on Boylston St., corner of Exeter.

The minutes of the faculty meetings of 1883, written mainly in the flowing script of R. H. Fitz, secretary, make frequent sober reference to the oncoming events but by no means exclude more important matters.

Some reference to these simple but dignified annals may not be out of order, eighty years later.

Eager to let no day pass whose low descending sun saw not some worthy action done, according to a pious proverb of the day, the faculty met on Saturdays at the house of the dean, then Calvin Ellis, with President Eliot usually in the chair. The meetings sometimes continued until midnight or after, in direct violation of the current blue laws. On January 6 of that eventful year Dr. White "called attention to the desirability of some action with reference to a celebration of the hundredth anni-

versary of the existence of the School," and a committee was appointed to consider a plan. Since the faculty still controlled an appreciable quantum of the resources of the institution, \$100 was appropriated for Dr. Warren's course on bandaging.

On February 3, Dr. Warren presented a scheme, unfortunately unrecorded, for the celebration of the Centennial Anniversary; and four weeks later Dr. Minot recommended that Dr. Putnam, already lecturing on the use of electricity in the treatment of diseases of the nervous system, be asked to include three lectures on massage. Continuing to be

helpful, at the April meeting Dr. Minot proposed, and it was so voted, that \$60 be provided for instruction of the fourth-year class in cookery.

On May 5 it was decided that "instead of the room (in the new building) provided for coats, the space on the first floor beneath the gallery and behind the stairs be assigned for the safe keeping of coats, if necessary;" at the next meeting, on June 2, the room originally assigned as a coat room was added to the janitor's apartments, by advice and consent.

Perhaps because of the longer days and shorter nights, possibly because of Commencement coming on June 27, a second meeting was held on the twenty-third instant, at which it was recommended that instead of \$250, the sum of \$400 be annually placed at the disposal of the dean. October 17 was designated as the day for the dual celebration, the ravages of a fire in the new amphitheater having to be repaired, and 75 candidates were accepted for degrees. H. P. Bowditch was elected dean and further progress was made in the sophistication of medical education, for the meeting of September 29 was held at the School.

On this occasion the St. Botolph Club House was selected for the reception on the evening of the Centennial. It was also voted "that the mechanic heretofore employed in the museum and in the physiological laboratory be hereafter employed only in the latter department and be wholly under the direction of the Professor of Physiology."

At the important meeting of October 6, with the approaching celebration but eleven days distant, it was decided "that wine and cigars should be supplied at the evening entertainment at the discretion of the Committee." Two other important matters were settled — that the transportation of bodies be referred to the dean and professor of anatomy, with full powers, and that the professors of chemistry and physiology be authorized to expend \$50 on the purchase of a steam engine for performing work in their departments.

Such were the demands of progress, that on November 3 it was voted that a telephone be placed in the new building (on a party line) at an expense of \$72 a year — no inconsiderable sum so soon after the recent great depression. The professors, moreover, in a sudden access of extravagance, voted that a safe be procured, although at an expense not exceeding \$100, and \$50 was voted to furnish chairs for the lecture room occupied by Dr. Rotch in the Blossom Street Hospital. To balance this generosity, it was ruled that no refreshments be provided at any of the faculty meetings in the future, and that a petition from Dr. Minot for \$100 to continue his study of the laws of growth be turned down. After all, there are limits. The School was still an institution for instruction, not research, and this request was for hard money.

A report on negotiations with President Walker of the Massachusetts Institute of Technology for the use of the Institute's gymnasium by medical students was laid on the table on November 24, and arrangements for hanging a portrait of Dr. Holmes and placing the busts of Drs. Bigelow and John Warren were satisfactorily settled. Drs. Bowditch and Dwight were appointed a committee to make

further representations to the Corporation in regard to methods of procuring anatomical material, presumably aside from "resurrection." At the same meeting the question of "Female Medical Education" again reared its lovely head at the instance of its perennial champion, Dr. Bowditch; and the Faculty, replying to a request from the Corporation for its opinion, again deemed it "not advisable that the President and Fellows should open a course of medical study for women under the auspices of the University."

At the final meeting, on December 1, the proposal that a memorial pamphlet on the Centennial celebration be published at a cost not exceeding \$1,000 was rejected, but the publication of Dr. Holmes's address at \$500 was authorized; with its characteristic foresightedness the *Boston Medical and Surgical Journal* had already printed it on the day after its delivery. Also voted was the covering with asbestos of the steam pipes in the new basement at \$137, and the placing at the disposal of the President a carriage "to convey him to his residence in Cambridge after the meetings of the Medical Faculty," apparently regardless of expense. But Harvard has always been good to its presidents.

The "Grub Club" meets at the home of H. P. Bowditch, Jamaica Plain, circa 1886. L. to r., front row: William L. Richardson, Frederick C. Shattuck, Oliver F. Wadsworth; sec. row: Henry P. Quincy, Edward S. Wood; last row: C. Ellery Stedman, Reginald H. Fitz, Edward Wigglesworth, Clarence J. Blake. Absent: George B. Shattuck, James R. Chadwick. Photo taken by Henry P. Bowditch.





Good frend, for Iesus sake forbear
To digg the dvft encloased heare:
Blest be ye man yt spares thes stones
And cvrst be he yt moves my bones.

"The Dvft Encloafed"

by Gordon T. Moore '63

The plaint of the 16th century epitaph quoted on the opposite page is clear; grave-robbing was even then a minor art. In fact, as far back as the history of medicine wanders, the illegal appropriation of bodies and the science of anatomy have been gruesome bedfellows.

The ancient Greeks laid the intellectual foundations of medicine, but the anatomical study of man began in the conquered realm of Alexandria. Erisistratus, Herophilus and Galen instructed their students in the organization of the human body directly from dissections, using bodies furnished by the Ptolemies. Celsus states that these anatomists also obtained criminals "for dissection alive, and contemplated, even while they breathed, those parts which nature had before concealed."

This period of "enlightenment" was extinguished by the Dark Ages, during which the Church strongly opposed dissection in any form. The study of anatomy owes its revival to Frederick II, the remarkably liberal German emperor of the Middle Ages. In the year 1231, he decreed that a body be anatomized at least once every five years in the Italian medical center of Salernum. About a century later dissection became legal in Spain, Germany, Naples, Venice and Bologna, although it was seldom practiced, except at Bologna.

During the 15th and the first half of the 16th centuries, Michelangelo, da Vinci and Della Torre did much to advance the study of the human form and surface

anatomy. But it was Vesalius, in 1543, who fathered the modern study of anatomy with his brilliant *De Humani corporis fabrica*. In the years following his death, anatomical study flourished, especially at Padua and Bologna, where thousands of students worked in beautiful dissection theaters.

Legalization of dissection obviated

the necessity for grave-robbing in Europe; but in England and later in America, laws for provision of anatomical dissection were scant, and body snatching became a criminal activity of the first rank. Organized teaching of the science in the British Isles began primarily under the Guilds of Barber-Surgeons, who were provided "once in the year, one condemned man after he be dead to make anatomy of," by King James IV of Scotland, in 1505. Thirty-five years later Henry VIII gave the United Company of Barbers and Surgeons exclusive right to dissect four executed criminals a year, and Queen Elizabeth subsequently granted similar privileges to the London College of Physicians.

Finally, in 1752, George II decreed that every murderer executed in England be used for dissection. Because he added, however, that he did this "in order that some further terror and peculiar mark of infamy might be added to the punishment of death," his action did little to enhance the prestige of surgical and anatomical study in the public eye. The bodies thus acquired were to be used only in public anatomies, conducted by the Barber-Surgeons some half dozen times a year.

At first it was not necessary to supplement these public anatomical demonstrations with many private, illegal dissections. Gradually, however, general interest in medicine grew, and its supporters demanded a more thorough study of anatomy.

Private instruction in the course in the British Isles

*Reputed to have been written by Shakespeare, this epitaph is carved on a gravestone at Stratford-on-Avon, England.

All of the illustrations in this article are credited to The Bettmann Archive, Inc., New York.

Gordon Moore '63 originally presented "The Dust Encloased," in longer form, at the Boylston Society, of which he is a member. A graduate of Harvard University, 1959, he is presently an intern in medicine at the Massachusetts General Hospital.



The exhumation of this grisly bride actually occurred in 1868, in the vicinity of New York.

began in Edinburgh, with the appointment of Alexander Monro, *primus*, as "Professor of Anatomy in this City and College" in 1720. Monro established a hegemony of three Monros, under which Edinburgh emerged as the foremost medical center in the British Isles. As the reputation of the pompous Barber-Surgeons waned and they lost the power to monopolize the field, England established two medical schools, associated with St. Bartholomew's and St. Thomas'. Their dissecting facilities were still far from ideal, however, as indicated by South's description of one dissection room at St. Thomas':

... a large fireplace and copper vessel (were) used to prepare the subjects for dissection . . . and a large leaden sink . . . was indiscriminately used for washing hands and washing subjects, and discharging all the filth. In this room were usually standing a dozen or so tables with their corresponding burdens, and six to eight pupils at each, so that on an average the room was crammed with 70 to 80 people, clad in filthy linen dissecting gowns, so that there was scarce possibility of moving.

In 1748, a Scot, William Hunter, opened the Great Windmill School, where he gave a series of private anatomic lectures in which the student himself, with Hunter, began the dissection — a revolutionary concept which marked the beginning of modern anatomical instruction in England and greatly increased the demand for bodies. By the early 1800's, the third of the Monros at Edinburgh was also encouraging the development of smaller, more private anatomy instruction.

The number of bodies available did not increase in proportion to the growing need. "In all Great Britain, from 1805 to 1820, there were executed 1,150 criminals,

or about 70 annually; and at the same time there were over 1,000 medical students in London and nearly as many in Edinburgh." These students demanded dissection as part of their training; by 1828, schools in London alone required over 800 bodies.

And so began an infamous era in medical education. Great numbers of students procured bodies for their schools extracurricularly, and most of the great teachers of the time either took an active part in grave-robbing or had extensive commerce with professional resurrectionists, who were motivated by monetary return alone.

Penalties for body snatching were minor; the crime rated a mere misdemeanor punishable by a small fine and several months' imprisonment. In the case of the *King vs. Lynn* in 1788, it was ruled that the stealing of bodies was not even a felony, since a dead body did not represent real property. If, however, the robber took any of the burial vestments, he was punished far more seriously. Also liable for punishment was the recipient of the stolen body.

As the grave-robbing business grew, students and teachers left all but the procuring of particularly interesting subjects to professionals. Giants were especially desirable. One such specimen, a Corney Magrath, who died of consumption in Dublin, so enticed the professor

By day it was his trade to go,
 Sending the black coach to and fro;
 And sometimes at the gate of woe,
 With emblems fuitable,
 He stood with brother-mutes to show
 That life is mutable.
 But long before they passed the ferry,
 The dead that he had helped to bury,
 He sack'd (he had a sack to carry the bodies off in;)
 In fact, he let them have a very short fit of coffin.*

of anatomy at Trinity that he hinted subtly to his class on the morning of the giant's death:

Gentlemen, I have been told that some of you in your zeal have contemplated carrying off the body. I most earnestly beg you not to think of such a thing; but if you should be so carried away with your desire for knowledge that thus against my expressed wish you persist in doing so, I would have you remember that if you take only the body, there is no law whereby you can be touched, but if you take so much as a rag or a stocking with it, it is a hanging matter.

A short time later, four young men in disguise joined the giant's wake, calling forth renewed volumes of whiskey to which, with true pharmacological enthusiasm, they added laudanum. When the mourners finally slept, the giant's huge frame was unceremoniously carted off on a large door to Trinity.

Equally unscrupulous was the anatomist John Hunter, who, on hearing of the sickness of another giant, extended

efforts to obtain the body. The quarry attempted to thwart Hunter by requesting in his final moments that his body be sunk in the sea at 20 fathoms. Hunter bribed the undertaker, however, and during the body's journey to the sea, and while the escorts stopped at a pub, Hunter's accomplice substituted paving stones for the remains and brought the body to Hunter. Fearing discovery, Hunter immediately submerged the body in acid, and even today its bones show the brown discoloration of this treatment.

One respectable man of science, an Edinburgh surgeon named Robert Liston, joined forces with the resurrectionists to obtain the body of a hydrocephalic. Following its burial, trustworthy friends of the family zealously guarded it at night for several weeks, while Edinburgh anatomists tried unsuccessfully to bribe them. One eve-

*From *The Sack-'Em-Up Men*. Edinburgh, 1928.

**Quoted in *The History of Rome Hanks*, by Joseph S. Pennell. New York: Scribner Publishing Co., 1944.



The body-snatchers they have come,
 And made a snatch of me;
 'Tis very hard them kind of men
 Won't let a body be!
 The cock it crows—I must be gone!
 My William, we must part;
 But I'll be yours in death, although
 Sir Astley has my heart.**



Up the clofe and down the stair
But and ben with Burke and Hare.
Burke's the butcher, Hare's the thief
Knox the boy that buys the beef.

— The History of Rome Hanks

ning at dusk, however, two well-dressed gentlemen drove up to the chief hostel in the small village, asked that their rig be watched for an hour, and informed the stable boy that a package would be delivered to him, which he should place in their trap. They departed, and a man in neat livery soon delivered the bundle. A short while later, the two gentlemen returned and drove off smartly. When the night watchers arrived, they found the grave open and the body gone. The skeleton was later discovered in the extensive anatomic collection of the crafty Liston.

The marriage of grave-robber and anatomist was always insecure, however. Each knew the other's weakness, and neither trusted the other. The prominent anatomist Sir Astley Cooper once said of the resurrectionists:

They are the lowest dregs of degradation. I do not know that I can describe them better; there is no crime they would not commit, and as to myself, if they should imagine that I would make a good subject, they would not have the smallest scruple, if they could do the thing undiscovered, to make a subject of me.

The professional resurrectionists most easily obtained their bodies from the cheap private cemeteries or large paupers' burial grounds. Their gruesome work was always done at night, often by men employed as hearse drivers during the day, or by undertakers who knew the location of the new graves.

Gradually body snatchers banded into gangs. The successful ones often demanded and obtained a retainer, both before and after the "season," to dissect in the schools they supplied, and it became customary for a gang to guarantee annual supply to a school on the condition that it use no other sources.

Although the heads of government recognized and accepted these contracts, the citizenry became irate at the mere suspicion of grave-robbing; and the local constabulary often arrested the "sack-'em-up" men merely to protect them against an angry mob. The grave-robber's fee depended on the condition of the body. Fifteen pounds was a good price, and bodies stolen before burial were

even more valuable. In *The Diary of a Resurrectionist*, a member of a London gang reported that his group disposed of 332 adults and 47 smalls in 1810-11 and a total of 783 bodies in two years.

Clever resurrectionists used all kinds of ruses. Some would appear at the bedside of a dying, friendless man to be named as the rightful claimer of his body when he drew his last breath. One Merry-Lees assembled "fellow mourners," including a mock clergyman who held forth on the uncertainty of life and the need for spiritual uplifting as the body was sorrowfully removed. Others contrived to remove bodies from their coffins before burial, replacing them with equivalent weights of stones or earth, either by bribery or merely breaking into the area where the coffin was kept.

Cemetery sextons often unlocked the gates for grave-robbers, and occasionally they acquired a house adjacent to the burial grounds for use as an unobtrusive business base. Diggers sometimes tunneled 15 to 20 feet to the coffin and dragged out the corpse by its feet or hair. The tunnel was then carefully filled and the sod neatly replaced — an elaborate technique which left mourners, arriving the next day, completely assured that their loved one remained in eternal repose. Other grave-robbers began by clearing away the earth over the upper third of the grave. Their method is described in detail by Sr. Robert Christison in his *Autobiography*:

The time chosen in the dark winter nights was, for the town churchyards, from six to eight o'clock, at which latter hour the churchyard watch was set and the city police commenced their night rounds. A hole was dug down to the coffin only where the head lay — a canvas sheet being stretched around to receive the earth, and to prevent any of it spoiling the smooth uniformity of the grass. The digging was done with short, flat, dagger-shaped implements of wood, to avoid clicking of iron striking stones. On reaching the coffin, two broad iron hooks under the lid, pulled forcibly up with a rope, broke off a sufficient portion of the lid to allow the body to be dragged out; and sacking was heaped over the whole to deaden the sound of cracking wood. The body was stripped of the grave-clothes, which were scrupulously buried again; it was secured in a sack; and the surface of the ground was carefully restored to its original condition — which was of recent disturbance. The whole process could be completed in an hour, even though the grave

might be six feet deep, because the soil was loose, and the digging was done impetuously by frequent relays of active men. Transference over the churchyard wall was easy on a dark evening; and once in the street, the carrier of the sack drew no attention at so early an hour.

As the public grew more aware of these activities, occupational hazards and obstacles increased. Cemetery walls were rebuilt with loose stones; nails and glass were imbedded in their surfaces. Mortsafes — strong bars set in concrete — protected the graves themselves. Spring guns were often set; although these were little inconvenience to the resurrectionists, since female confederates masquerading as bereaved relatives could either cut the wires or mark their locations in the afternoon. Some caretakers even kept the bodies in guarded houses until their decay made them useless to anatomists.

Fear of grave-robbing prompted such advertisements as the following:

Many hundred dead bodies will be dragged from their wooden coffins this winter, for the anatomical lectures (which have just commenced), the articulators, and for those who deal in the dead . . . The only safe coffin is Bridgman's Patent wrought-iron one, charged the same price as a wooden one, and is a superior substitute for lead.

Precautions were virtually useless, however, for by the early 1800's the demand was so great that resurrectionists conceived elaborate methods of shipping bodies through intercity networks. Wilson Rae, a half-pay surgeon who succeeded in cornering the entire body market of Dublin, was finally apprehended as he and his wife were engaged in shipping bodies in piano-cases. In Liverpool, 1826, three casks were taken to the dock to be shipped to Edinburgh. Though marked "Bitter Salts," the casks soon began to smell suspicious and were found to contain eleven dead bodies. It was reported that: "The doctor had no reason but to believe that they had died in a natural way, and he had no doubt the bodies had all

been disinterred. The Season for Lectures on Anatomy is about to commence in the capital of Scotland."

In pursuit of still greater profit, resurrectionists took to removing the teeth from their bodies, selling them for construction of dental plates. They also traded in human fat, which at one time was thought to be a balm for superficial wounds.

For such ghoulish merchants, it was only one step further to trading in human life. The first particularly infamous murder case was that of Burke and Hare in 1828. Burke and his mistress, Helen McDougal, lived with Hare and his wife in Edinburgh, where Hare ran a vagrants' boarding house. When an old man who boarded with Hare died in penury, owing Hare four pounds, he and Burke stole the boarder's body for payment, receiving twice the original sum. Pleased with how easily they had profited, the two embarked on a series of murders. In the first, typical of their technique, Hare accosted a drunken, debilitated old lady, Abigail Simpson, on the street, brought her to the boarding house, plied her with whiskey until she was hopelessly drunk, and then, with Burke, smothered her. She and several subsequent victims were sold to Robert Knox, the outstanding teacher of anatomy in Edinburgh at this time.

No one suspected them until they brought in Mary Patterson, a young local prostitute who was apparently well known to several medical students. The fact that her hair was still in curlers suggested that she had never been interred; but since there were no external signs of violence, Burke and Hare went free to commit a total of 16 murders.

On the 16th and fatal occasion, the two invited a



American bodysnatchers thrust back the angry public during a dissection.

couple named Gray to join the drunken festivities which usually preceded their murders. Here the Grays met another guest, Mary Doherty. At breakfast the following morning, the Grays noticed that Burke behaved very peculiarly, liberally sprinkling the contents of a whiskey bottle under the bed, onto the ceiling, and even rubbing his chest with it before drinking. Mrs. Gray became even more suspicious when she reached under the bed for some potatoes and Burke abruptly insisted on getting them himself. Left alone for a moment, the Grays quickly looked under the bed and discovered a body — the Mary Doherty of the night before. She and her husband summoned the police, and the gang was brought to trial.

The state, in order to secure the case, gave immunity to the Hares on the condition that they turn state's evidence. Burke was subsequently found guilty, and the other three secretly released. Burke's crimes so enraged public temper that 25,000 people attended the hanging; and when Dr. Monro later dissected the corpse at a public dissection, another 25,000 gathered to view the body unclothed on a black marble table. Hare went to work as a plasterer's apprentice after his release, but when his fellow workers discovered his identity, they threw him into a bed of lime. It is said that, permanently blinded, he lived out his life as a London beggar. Robert Knox, though officially exonerated of any guilt, never recovered from the scandal.

Shortly before this incident, Henry Warburton, Member of Parliament and a defender of medical interests, became chairman of a committee to inquire into the state of anatomy and the methods of obtaining bodies in the British Isles. His first measures were defeated in the House of Lords.

Not until another horrible murder was widely publicized was the legal situation improved. The body of a 14-year-old boy was delivered to the dissection room

of Kings College in a state so suspicious that the porter and demonstrator delayed its carriers on the guise of getting change and summoned the police. The body was identified as Carlo Ferrari, who made a meager living displaying white mice. Enticed by three men, Bishop, Williams and May, to their lodgings, he had been drugged and lowered into a well to drown. The trio, who also admitted to two previous murders, were tried and sentenced to death.

The impetus these and many other murders provided, plus the efforts of Thomas Wakley, editor of the fledgling *Lancet*, and a society formed to push for legal revisions, brought about the first Anatomy Act in 1832. Warburton introduced a second bill which provided for the repeal of compulsory dissection of murderers, erasing the stigma of the hangman from dissection; arranged for a board of inspectors; made possible the willing of bodies for dissection; and most important, stated that any bodies unclaimed 48 hours after death could be used for dissection, provided that the individual had not expressed contrary wishes while alive. Serious defects of the law were subsequently corrected through further legal action and the passage of time.

In this country legislation against body-snatching was handled by each state, over a period of several decades. Massachusetts was first, in 1831; New York and Pennsylvania followed suit within a few years.

Prior to 1831, the source of legal bodies in Massachusetts was mainly executed criminals. In 1784, the state ruled that those killed or executed for fighting in duels were to go to the surgeons for dissection, but the supply

Bar-maid starts back with horror when she comes upon the corpses of several "Burked" victims stashed in a peddler's wagon at the "Halfway House" outside of Baltimore, 1887.



of bodies was still insufficient. One of the first two students at Harvard Medical School tells in his diary that the school received only four executed criminals one year, making grave-robbing a necessity. He reported one case in which he and his colleagues bribed the cemetery caretaker to cover the coffin of an obese spinster with only a thin layer of dirt. After the theft, the relatives, finding a shovel tossed carelessly near the grave, demanded a search warrant be issued by the governor. The student, an obvious suspect because of the school's slim opening attendance, brightly suggested that the governor happened to be a member of the Harvard Corporation; the matter was speedily dropped.

John Collins Warren, son and successor of the first Professor of Anatomy and Surgery at the Medical School, describes a student expedition which handily matches those of their British comrades in audacity. Preparing to lift a body over the cemetery wall of the North Burying Ground, the boys noted a stranger walking along the wall on the opposite side. One of them hastily feigned drunkenness, engaged the man in conversation and started a quarrel. A second member of the group arrived and sided with the stranger, ordering the first on his way. He then gallantly led the stranger away in the opposite direction, while the body was meanwhile hoisted over the wall and carried off in a carriage to Cambridge. The elder Warren is said to have been rather alarmed that his son was involved in such an affair but suppressed his anger when he saw the fine quality of the stolen body.

Another of Dr. Warren's skilled students was apprehended by the police while looking in South Burying Ground for a grave he had marked earlier. At the courthouse, he listened quietly to his accusers, then violently turned on them, charging them with attempting to ruin his reputation and threatening action himself. The judge was so astonished and confused by this attack that he discharged the defendant.

As early as 1818, after the indictment and conviction of Dr. Thomas Sewall of Ipswich for grave-robbing, the Massachusetts Medical Society proposed that a committee be appointed to seek legislation. The first bill was introduced in 1830; and when the second came before the governor in 1831, it became law.

The relative smoothness with which the Massachusetts Bill was passed was no measure of public attitude toward dissection. William Shippen, one of the first instructors of anatomy in this country and a founder of the first medical school, was besieged by rioters on several occasions. Once he only barely escaped,

passing out through an alley, while his carriage, which stood before the door with its blinds raised, and which was supposed to contain him, received, along with a shower of other missiles, a musket ball through the centre of it.

Ironically, rioters against dissection often exceeded their adversaries in ghoulishness. The so-called "Doctors' Mob" was incited by the suspicion that the physi-

cians of the city had robbed the graveyards. Thacher relates that:

The concourse assembled was immense, and some of the mob forced their way into the dissecting room where, finding several bodies in various states of mutilation . . . (they) seized upon the fragments, as heads, legs and arms, and exposed them from the windows and doors to public view with horrid imprecations. The rioters had now become so outrageous that both the civil and military authorities were summoned to quell the tumult, and the medical students were confined in the common prison for security against the wild passions of the populace.

For two days following, Secretary Jay and Baron Steuben tried to quiet the mob. They were both injured by objects thrown at them and finally ordered the militia to fire into the crowd.

Such disturbances were uncommon in most states, however, which accounts for the fact that some of them delayed, until almost the turn of the century, the enactment of anatomy legislation. In several of these laggard states, it took a particularly shocking incident to bring about any new laws.

Maryland amended its laws shortly after a case of "Burking" was brought to light in Baltimore. A destitute, formerly prominent woman had drifted to the city, where she finally came to live with a Negro family in the poorest section. In the same residence lived John Ross, one of the porters in the dissection room of the University of Maryland. He and another man strangled her and sold the body to the University for \$15.00. The condition of the corpse excited suspicion, and the two were apprehended and finally hanged in 1887.

Perhaps the most widely discussed and distressing example of grave-robbing occurred in 1878, prompting Ohio's anatomy legislation. John Scott Harrison, former United States Senator, son of the ninth president of the United States and father of the 23rd president, died on May 26, and was buried three days later at North Bend, Ohio. A few days afterward his son, Benjamin, was searching for the remains of a friend in the Ohio Medical College and came upon the body of his father.

The turn of the century marked the passage of the body-snatchers. Like so much in the slow and occasionally awkward progress of medical science, grave-robbing now belongs to another era. Yet fascination with those times persists; and when young Jerry Cruncher in *Tale of Two Cities* exclaims, "Oh, father, I should so like to be a Resurrection-Man when I'm quite growed up," we can still, almost, believe him.

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Dr. Robert J. Haggerty, chalk in hand, teaches a class in family medicine for residents and students.

GENERAL PRACTICE:

Extinction or Rebirth?

by Robert J. Haggerty, M.D.

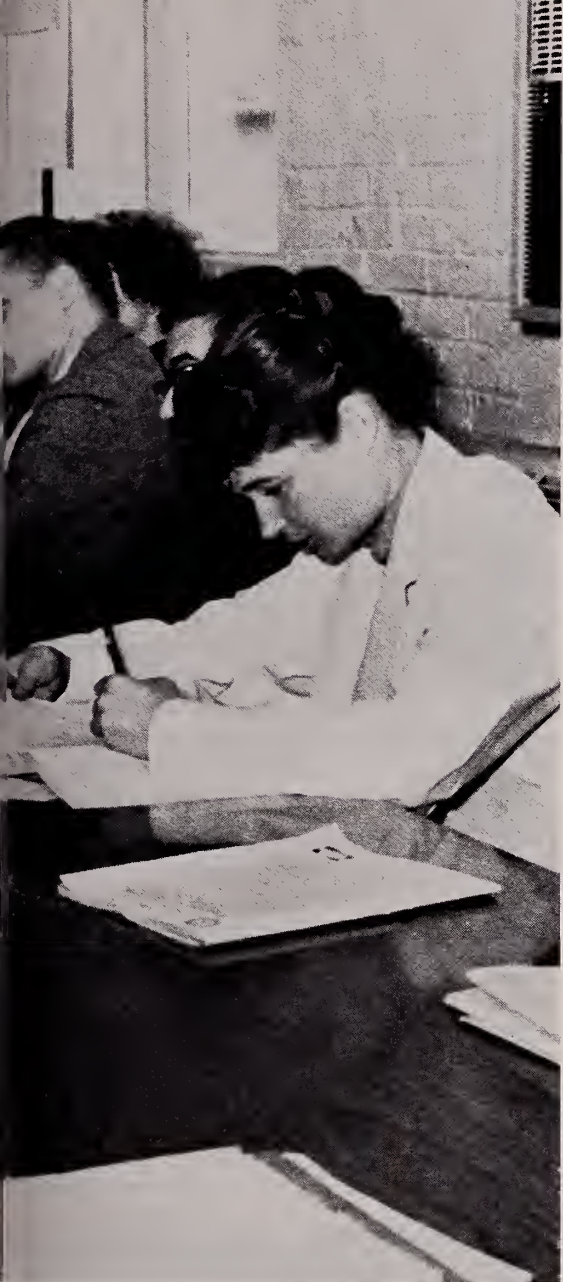


photo by Inger Abrahamsen

The following article outlines some of the problems concerning the practice of medicine which have led to the development of the Family Medicine Program by the departments of medicine, obstetrics, pediatrics and psychiatry at the Boston Lying-In, Children's and Peter Bent Brigham Hospitals.

Begun in 1955, the Program's development during the first six years was made possible by a grant to the Harvard Medical School from the Commonwealth Fund. This was supplemented by a three-year grant from the Charles H. Hood Dairy Foundation. The first six years of the Family Health Care Program were devoted to organizing a family practice and to the study of education in family medical care for two principal groups — house officers in pediatric training at the Children's Hospital Medical Center and third year Harvard Medical students.

Two years ago, the Program was further extended to include advanced post-residency fellowship training in family medicine for pediatricians, internists and general physicians, with the assistance of a grant from the U. S. Children's Bureau.

From its inception, this program has been predicated on the thesis that family medical practice is a legitimate and important area for investigation which can only be studied in a suitable field laboratory, namely an actual medical practice. A number of interesting investigations on specific problems, such as the etiology of home accidents and the relation between life stress and the development of streptococcal infection, have already been carried out. Dr. Haggerty now plans a major study of family-focussed medical practice, with comparison of an experimental group with a control group of families. This will be supported by another grant from the Commonwealth Fund.

Behind this whole program lies the desire of this school, under the leadership of Dean Berry, not only to apply advances in the natural sciences in order to unravel the mysteries of disease, but to utilize the developing knowledge and techniques of the social sciences in order to study the major problems in the promotion of health and the prevention of disease in the family, which remains the basic social unit.

Charles A. Janeway, M.D.
Thomas Morgan Rotch Professor of Pediatrics
Harvard Medical School
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"GENERAL practice should die out. Specialists can do everything the general practitioner can do, only better."

"What our family needs is a family doctor. During my husband's five-year losing battle with cancer, we had the best specialists this city's

great medical centers could provide. But one thing was missing — a family doctor who could make house calls when he had acute setbacks; care for all the other illnesses he had beside the cancer; and most important, help the rest of the family adjust to the impending loss."

Such are the contrasting views of sincere people on the future of general practice.

The Decline in General Practice

General practice is attracting fewer doctors today than it did a half century ago. In 1915, 60 per cent of the physicians in the United States were general practitioners. By 1960, the figure had dropped to only 21 per cent. Even though three-quarters of the students entering medical school still wish to be general practitioners, less than one-fourth retain their interest in general practice by graduation. More drop from the ranks of general practice during these four years than at any other time, but attrition from the field continues throughout their practicing lives. The increased awareness of the difficulties of being a good general practitioner and contact during medical school with teachers who are specialists both influence students toward specialization.

Once graduated, the young physician faces still more pressures to specialize, for few hospital training programs are specifically designed to prepare him for general practice. After finishing hospital training, physicians continue to shift to the specialties, as they become plagued by longer hours, harder work, lower status, lack of hospital appointments and the other disadvantages accruing to general practice.

Specialist or Generalist ?

The decline in general practice is a fact, but why worry about it? If better care can be given by specialists, why shouldn't medical education send everyone into specialties?

It is true that the quality of general practice today leaves much to be desired. In their studies of the field,

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Dr. Osler Peterson (North Carolina), Dr. Clute (Canada), and Dr. Collings (England) found too many patients, inadequate histories and examinations, unqualified performance of surgery, and inability to keep abreast of the advances in medical science as major deficiencies. That many general practitioners are not guilty of these failings (or that many specialists are guilty of the same failings) does not soften the charge that performance in general practice is often mediocre.

To condemn old-fashioned general practice seems unfair, for there have been few men trained for such demanding practice through an adequate, planned postgraduate program. It seems clear that someone must provide primary medical care. The question seems to be, what should be the training and job of this person?

Professor McKeown of Birmingham, England, states that the *technically and intellectually competent* physician should offer four basic elements if he is to provide good primary medical care: 1.) *personal* and *continuing* interest in the patient; 2.) the *combination* of *curative* and *preventive* services; 3.) *care in the home*, when necessary, as well as in the office and hospital; and 4.) *care for the social unit — the family*. The pediatrician, internist, obstetrician and geriatrician can provide all but the last of these services, and McKeown believes the family is the least important. But a properly trained family physician could provide all of these elements.

Deficiencies in specialized care exist, if we believe care of the family unit is important in medical care. This is particularly true in the field of preventive medicine. It seems a bit wasteful, if not confusing, to have two or

Parking lot for the carriage trade at The Family Health Clinic building where all the members of a family . . .

Bruce E. Bailey



more specialists caring for individuals in the same family, trying to alter the living patterns of different family members in different ways.

Family Medicine

To offset these problems, today's general practitioners are increasingly assuming the role and title of family physician and making this into a specialty of its own, usually leaving major surgery to others more qualified. Some still do obstetrics, but most provide both curative and preventive medical care for all age groups and focus on the family as the unit of medical care.

Some of the reasons that the family is an important unit of medical care lie in the social changes in America during the past decades. With increasing urbanization, greater social and geographic mobility, and separation of families from their kin, special medical care problems have arisen — particularly in the areas of child-care and geriatrics. Young parents, separated from their relatives, commonly turn to their physician for advice in child raising. Old people, living longer and subject to degenerative, chronic illness, often cannot depend on their children because they live far away. The doctor who cares for such separated family units must understand the functions which the old, large family fulfilled, so that he may help provide substitutes.

It is also difficult to draw clear-cut lines between the illnesses of different members of one family. Infections often spread from children to their parents. Accidents

and some infections appear to occur more often in children after some acute family crisis has altered the balance of adjustment — crises such as the death of grandparents, illness of parents, job changes for the father, or family moves. Chronically handicapped children alter the lives of the family so that its otherwise healthy members may develop symptoms of maladaptation. Convincing one family member to accept needed surgical or other medical care, or providing management for severe chronic illnesses, often requires delicate understanding of the other family members. It is more and more recognized that people should be helped to seek care early in the course of disease, when symptoms are minimal and the possibility of cure is greater. A physician who is properly trained and oriented to the whole family can probably fulfill these needs better and more efficiently than the specialist who treats only one individual.

Not only is there a special body of knowledge to be learned in order to be a good family doctor; there is an attitude of mind to be developed. Family practice requires specially trained physicians, not ones that are half-trained in a number of specialties.

These medical and social factors have led to a rising interest, among medical educators, in the field of family medicine. Several medical schools have developed undergraduate teaching programs in this area to instruct students in some of the basic socio-medical aspects of the family unit. Very recently, post-graduate residencies and fellowships in family medicine have also been developed; and most of these programs have instituted research in these areas of medicine.

. . . can receive ambulatory care.

A third-year medical student ("doctor-in-training") who has given this mother prenatal care and delivered the infant is now examining the new baby with the mother.

photo by Inger Abrahamsen





As part of his training at CHMC, this pediatric resident is assigned to a family for an entire year, through the Family Health Clinic. Here, as part of the Clinic's preventive services, he checks over this obviously healthy little boy.



Examining his patient on the kitchen table, a medical student treats one of the children in his "practice" for an

A New Specialty

Will family medicine develop into yet another specialty? Many say it should. Others contend that the specialists who provide primary medical care should be trained to have a family focus in their practice. It seems clear that we must conduct a good deal more research on specific aspects of medical care for families in order to reach a sound decision.

The organization of a department of family medicine in medical schools is one way to obtain this information. Merely to study existing practices is not enough. Demonstration projects, experiments in new methods of practice, and careful evaluation of these programs are needed. A department of family medicine should have the same basic functions as do other clinical departments: patient care, teaching and research.

Functions of a Family Medicine Department

Patient Care

In cities where medical schools are located, many families substitute the teaching hospitals for a family doctor. Different members of the same family go to different clinics — children to one, adults to another. For each illness — surgical, obstetrical, and medical — each family member will probably be seen by doctors in different clinics, with poor communication between them. Preventive services are rarely offered by these clinics, and care in the home is seldom provided. In the Harvard

Medical Area a family must use at least four different hospitals and several different clinics within each of these to obtain primary medical care for all its members.

While the level of technical competence is high in these clinics, none of McKeown's four essentials of good care — personal continuity, home, combined curative and preventive services, or family care — is present. If we can agree that these aspects of primary medical care are important, then it follows that university hospitals should attempt to provide them.

A family medicine unit should provide such care for families living in the medical center area but *not* for those referred to the center for special care. Patient care handled in a family medical department would not conflict with present clinical functions of the medical center. Indeed, it should free these facilities to do their special work more thoroughly.

Teaching

One of the medical school's objectives is to inculcate standards of excellence in its students. Developing in students a reflex sense of what constitutes high quality medical care is one of the aspects of professionalization. We pride ourselves on demonstrating the best in specialist care, in order that the student will learn optimal care of these problems. If one agrees that the criteria for good primary care outlined above are important, then students should see and participate in such family care too.



acute respiratory infection. His preceptor, who always accompanies him, instructs by the maxim that learning is best accomplished when accompanied by emotion.

But there are other compelling arguments for providing students with experience in family medicine: only by caring for the more common problems seen in these families can they appreciate the true prevalence of illness in the community. It would be well for students not only to learn that some illnesses do not bring a patient to the doctor but also to identify some of the factors that determine whether or not he presents himself to the physician.

An analysis of the prevalence of different types of illness in a population has shown that out of 1,000 people, 750 will have some symptom of illness each month, 250 will see a physician, but only one of these will require a university hospital specialty service for care.* Few would disagree that the student should become competent in the care of the 249 patients not requiring specialist care as well as of the one who does; and some argue that he should also know the reasons why the other 500 with symptoms did not seek medical care.

Today we believe that some of the skills of providing personal, continuing care can be taught to students by direct experience, through participation under supervision. We also know a good deal more about some of the elements of the doctor-patient relation and the role that social and emotional problems play in the cause of illness. Only if the student can gain experience in such

*White, K. L., Williams, T. F. and Greenberg, B. G.: "The Ecology of Medical Care." *New Eng. J. Med.* 265:885-892, 1961.

matters, under the guidance of specifically trained faculty members, can he be expected to leave medical school skilled in these techniques.

A department providing these services could broaden the training of those specialists who also provide primary medical care — pediatricians, internists, geriatricians and, perhaps, obstetricians. These specialists — practicing in groups — are collectively giving family medical care but are not trained in some of the problems of the family unit and in the value of teamwork in caring for this social unit. Such a family medicine unit also would provide these specialists, during their residency, with training in common medical problems, normal growth and development, preventive medicine techniques, and contact with community health agencies. For it is likely that in America we will continue to have both specialists and family doctors providing primary medical care.

Research

In a clinical setting devoted particularly to providing primary medical care, research on common medical problems is more practicable than in rare disease oriented specialty services. Research should then be one of the basic functions of any family medicine department in a medical school. All university departments should make contributions to knowledge, for research leads to better teaching, and research in family medicine should provide an intellectual stimulus which would make a career in this field more challenging than it has seemed in the past.

Many fruitful areas exist for collaboration between a family medicine department and practicing physicians outside the hospital. Collaborative research can benefit both university and practitioner; a family medicine department is a rather natural focal point through which to organize collaboration on such projects as controlled studies on the treatment of common illnesses, studies of the natural history of illness, the differences of disease in different geographical areas, and operational studies of medical practice. Such collaboration would provide the practitioner with new knowledge of disease and should also help close the breach that seems to grow between "town" and "gown."

TO THIS OBSERVER these seem to be compelling reasons for a university medical school to develop a department of family medicine. None yet exists in the United States, though the idea is under discussion in many schools. In Britain the recently established department of general practice at Edinburgh University, with The Sir James MacKensie Chair of General Practice, does fulfill most of these functions. Perhaps other universities will follow this example.

When such departments are organized to give this special training to a group of physicians and do more research on the benefits and defects of different types of family practice, society and medical profession may decide that the general practitioner faces not extinction, but rebirth as a family physician.

An Important Correspondence

March 23, 1963

Dear Dr. Berry:

During my recent visit to the Medical School, I was impressed, as always, with the high quality of teaching and research at HMS. The importance of the physical and chemical factors in health and disease was clearly demonstrated.



Despite all these assets, I remain troubled about what Harvard proposes for teaching the *care of the patient*. I read the Gay Lecture on the "Golden Rule and the Cycle of Life," with interest. The question in my mind concerns the proportion of a student's time spent on these aspects. It is popular to answer such questions by saying that students must bring their ethical and religious concepts

with them; that it is too late to change them in medical school; that these attitudes are the responsibilities of parents, churches and, perhaps, schools; that you and I were never required to study our attitudes toward the patient and therefore we have no right to ask today's students to study theirs.

Such arguments contain enough truth to lull us into false security, but they miss the essentials. The survival of medicine as a high professional calling demands that we meet reality. One reality is that students come to medical school with less willingness to accept the old rules of selfless service to their patients. Another reality is that today's students have fewer exposures to compassionate physicians. Even if there were as many proportionately, the exposures would be less because today's faculty clinicians are physically absent from the bedside more than their predecessors.

Harvard's leadership has depended on the human qualities of its graduates. I should appreciate any thoughts you may wish to share as to how these qualities are being encouraged to grow at HMS today.

J. WISTER MEIGS '40
Hamden, Conn.

July 31, 1963

Dear Dr. Meigs:

... The quality of the teaching and research activities of the Faculty of Medicine is indeed impressive, as you say. You agree, of course, that medical education must

stress the physical and chemical factors in health and disease. Against this background, you find yourself troubled about how the care of the patient is taught to our medical students; you wonder how much of our students' time is devoted to this important matter.

Let me begin my answers to your questions by entering a firm denial that — in my opinion and that of my colleagues — today's medical students at Harvard are "... less willing to accept the old rules of selfless service to their patients" or that they have "... fewer exposures to compassionate physicians."

How to approach a patient and help him with his difficulties is a matter that our students learn from their teachers more by example than by precept or admonition. I wish you would come to the School for a few days to watch some of our outstanding professors make rounds with the medical students, guide them in the clinics, accompany them to the homes of their patients. Over and over again you would be delighted, I am sure, to witness [with your experienced eye] their skill as clinicians and their kindness as human beings. The best physicians today — which our teachers are — combine the ancient art of the healer and the understanding of the modern scientist. And, it is by no means only the senior members of the Faculty who manifest the capacity to achieve this combination. Many of our interns and residents have done so to an extraordinary degree. As you well know, medical students learn a great deal from this younger group.

Concern for the welfare of others is traditional at the Harvard Medical School. This tradition is one that our medical students learn to appreciate and ultimately to revere. To it I attribute to no small degree the fact that there is little cutthroat competition among our students. They comment frequently that they have never before in their educational experience encountered such a fine *esprit de corps*. The degree to which they help and teach one another is extraordinary. When a student slips or falls, the rest rally to his support. This spirit of helpfulness explains in part why they are outstanding among the medical students of this nation in the compassionate understanding they manifest for their patients. How fortunate it is that high intelligence, curiosity and imagination almost always go hand-in-hand with a high capacity for empathy.

As medical advances make medical practice ever more complex, the capacity of a physician to help his patients in truly meaningful ways becomes increasingly a function of his scientific knowledge. In the student,

therefore, there must be carefully nurtured the ability that the good physician has to collect and sift essential clinical facts and — based on a sound understanding of pathophysiology derived from molecular, animal and clinical research — to integrate these facts with laboratory, social, genetic, environmental, behavioral and other appropriate observations in the synthesis of a clinical hypothesis for the benefit of his patient in the prevention, diagnosis and treatment of disease. This is the key-stone to the arch — simply blending scientific knowledge with compassionate care is not enough. Thus, it is inevitable in the future that more and more emphasis in medical school will be placed on the medical sciences. But it does not follow, I hasten to point out, although it is often assumed, that the medical student who is taught to understand his patients' problems in biochemical terms thereby fails to recognize the need for blending cold science with compassionate care.

The problem is more frequently the other way around: in their impatience to serve, some students fail to realize at the outset that their ultimate strength as physicians will reside in the extent of their knowledge of medical science. Some of them at first seem to regard the years of basic science as a necessary evil to be endured before achieving meaningful contacts with patients. If such an attitude persists, the performance of the student suffers in the clinic and he is apt to be ineffectual in practice. Fortunately, such students usually see the light before it is too late and they return to the laboratories of medical science to repair their knowledge. Actually, I wish more of them did, for too many become increasingly preoccupied with the personal aspects of patient care and the circumstances surrounding disease rather than with the disease itself. The result may be a drift toward the less scientifically demanding specialties, where physicians are sometimes less well informed than they should be about the hard, cold scientific facts of medicine. Biology as a science has no compassion. It is ruthless in its demands for cold logic on those who expect to understand its principles and to manipulate its mechanisms. Today, the physician who is unable to do so — however compassionate he may be — is a menace.

Compassion, like honor, is a quality best taught by example. In the course of my fifteen years at Harvard, I have not known a period when examples of compassionate understanding are more evident among our medical students and their teachers than is the case today.

GEORGE PACKER BERRY

Dean

August 13, 1963

Dear Dr. Berry,

Your concern about the subject of the care of the patient fills me with joy. It suggests that a cultural characteristic of an institution can perpetuate itself in spite of many adverse pressures from the community. If HMS interns and residents are really interested in the care of their patients, then the School is fighting and winning a battle which some other schools have failed to take seriously.

You make a couple of points about which I raise some question. You suggest that "high intelligence, curiosity and imagination almost always go hand-in-hand with a high capacity for empathy." Perhaps so, but even if so, it may be because a *capacity* for empathy is widespread in all men and women. The development of this capacity does not necessarily require a high I.Q. on the part of the subject. Conversely, the highly intelligent subject can be confirmed in habits of selfishness by training programs which fail to emphasize specifically the need for selflessness in professional work.

This leads to a second comment. You say, "Compassion, like honor, is a quality best taught by example." Many people share your view; but attractive as it sounds, I submit that it is only partly right. Neither compassion, nor honor, nor love, nor any other value is really taught by a single method. They are taught first by precept, second by example, third by the actual experience of the student. Perhaps we overemphasize example because we see so many failures in our own and others' examples. This concern to try to be good examples should not blind us to a number of fundamentals.

First, because of our inherent human failings, we can be really *good* examples in only the rarest of cases. Second, because of the inherent human failings of others, they will often interpret even our best efforts to be compassionate as cases in which we are acting from "ulterior motives." These are not lamentable facts, but just facts.

Accepting these facts, I suggest that Harvard's success in perpetuating a climate of caring for the patient and teaching the medical student to do so, is a success that needs analysis. I believe you will find that precept, example, and experience are combined. In a day of sociological studies (your comments on the ecology of the medical student were of great interest), we should know what goes into the teaching mix at Harvard. The ingredients needed to teach the care of the patient are badly needed at other schools.

J. WISTER MEIGS

Editorial: Scholarship Aid and the Alumni Fund

In line with the avowed purpose of your Alumni Office to keep you informed about the activities of the Harvard Medical School and the part that the Alumni Giving program plays in them, I am addressing to you a few comments on scholarship aid for our medical students.

Each year, as the cost of medical education and the living index rises, the number of students at HMS who must apply for financial assistance increases. In 1961-1962, for example, 273 students, or 46.4 per cent of the entire student body at the Medical School, received \$397,418.00 in the form of scholarships, loans, or fellowships. A sharp upward trend is noted when these figures are compared with those for 1962-1963, when 342, or 68 per cent of the student body, received \$479,659.00. One half of these required both a scholarship and a loan. These monies come from unrestricted funds that are needed for other School activities.

The Association of American Medical Colleges recently computed the average cost of four years of medical schooling for all the schools of the country. The cost per single student was just under \$12,000. For married students with dependents, the cost was in excess of \$18,000. When the cost of a two-to-five years' residency training is added, the student of medicine becomes heavily saddled with a sizeable debt. Such a debt necessarily influences his choice of career. He is less likely to practice in communities that may need him, but cannot afford to pay him. He is more likely to seek a secure position with a fixed income. With a sizeable debt hanging over his head, he cannot afford to gamble.

The high cost of a medical education tends to discourage many boys from attempting a medical career simply because it takes too long and costs too much to prepare for it. It is not surprising then that many qualified men are lost to industry through the Ph.D. programs in which much non-refundable assistance is available. Also unfortunate is the fact that only 15 per cent of the medical students of this country come from the more than 40 per cent of American families with incomes of less than \$5,000. To some extent, medicine has become a rich man's game.

To meet this problem, the American Medical Association has established a loan program. Since it started eighteen months ago, 9,800 medical students have borrowed from this fund. On September 24th, the President of the United States signed Public Law 88-129, an act that provides low-interest loans for medical students in any public or private school of medicine authorized to grant degrees. The Harvard Medical School has for many years had its own loan program, which makes funds available to students at low rates of interest and provides a flexible repayment plan geared to the individual's capacity to discharge his debt.

These loans for students available through the government and the AMA are limited in amount. The AMA-ERF program limits the loan to \$1500 in any 12-month period and \$10,000 over a seven-year period. Loans may not exceed \$2,000 per student per year in the government plan.

The need for scholarships will continue to rise. The tuition at the Medical School is now \$1,750, and it will be \$2,000 in 1966. The government's loan program will of course be of tremendous help to the medical student, but other sources of income will be needed. The medical curriculum is so demanding today that the student cannot seek financial help from outside jobs while still in School. One way to meet this growing need is through scholarship money.

HMS has long recognized the need for financial aid to the student and has an established policy to deal with the problem. 1. No student will be permitted to leave the School for financial reasons alone (the national average for medical school drop-outs has been placed at 10-12 per cent). 2. More importantly, the student who cannot afford it shall not be allowed to accumulate a debt of more than \$4,000 during his medical school days. In this fashion the Harvard graduate escapes the yoke of an overburdening debt that might hamper his choice of career. It is Harvard's answer to its goal of *equal opportunity for qualified students regardless of economic status*.

To accomplish this objective, the School must have money available to achieve a balance based on individual need between scholarship aid and loans. This is a challenge that the Alumni must meet.

Our School must have strength in its student body as well as in its Faculty. The Program for Harvard Medicine — a program for capital — is primarily dedicated to the strengthening of the Faculty. Through Annual Giving, the Alumni can strengthen the student body by making funds available to ease the financial burdens of the medical students. Despite the fact that Harvard does have a substantial endowment, a very real need for unrestricted funds remains. This is what the Alumni help to provide.

The obligation is clear and the need both great and continuing. The response of the Alumni has been outstanding even when the Fund had no particular objective in mind. It is because the most pressing need for 1964 is money to meet the increasing demand for scholarship aid that the goal for the coming year has been set at \$250,000. With but little extension of our efforts and without adding any great financial sacrifice to any Alumnus this goal can be achieved.

Director Alumni Relations
LANGDON PARSONS '27

Scientific Prose

Is It Really Literature?

M. DAVID ORRAHOOD '47

THE PERSONAL IRONY of medical prose is that good writers, who are near-geniuses, never understand the process of literature, and bad writers, including most of us, achieve neither felicity nor understanding of what we are talking about in the first place.

Of course there is much nonsense in "modern linguistic science," as Lincoln Barnett superbly points out in "Who Is Behind the Assault on English," published in the July, 1963, issue of *Horizon* magazine. Further, I agree with much of what our own Paul "Pepper" Davis gave us in "Deadly Medical Prose," published in the *Harvard Medical Alumni Bulletin*, Summer, 1963. Both of these authors, however, miss the essence of the problem.

What is it, then, that rings so true about these criticisms on literature in general and on scientific discourse in particular? These authors, and there are many more, would substitute poetic discourse for scientific discourse; the noise, the logic, the vocabulary of scientific discourse is so monotonous, so precise, so deadly that the humors rebel. Further, and this is the root of the problem, much of scientific discourse can be dismissed under the category of "So What?"

Unfortunately for authors, literary or scientific discourse is not what the English grammars say it is; more dull grammars have thrown cinders in the process than not. An example is the otherwise good style manual of Fishbein's "Medical Writing" which I earlier found meaningless [for understanding]; then I purchased the United States Government Printing Office' *Style Manual*, January, 1959, which was better classified and more intelligent. But, and this is the point here, the latter manual is "primarily a GPO printers' style book." English gram-

mars, including Perrin's, are no better.

How does one, then, come to lucidity and fluidity in English? The answer is not clear; but, in part, it is a different light from that above. These authors are helpful: Toller's *Outline of the History of the English Language* (Macmillan, 1900), the delightful *Our Language* by Simeon Potter, and *The Pattern of English* by G. H. Vallins (both Pelican Books), the almost inestimable Otto Jespersen's *Growth and Structure of the English Language* and, most recently, William Struck, Jr. and E. B. White's *The Elements of Style*. In these one becomes conscious of the rigid English structure and the formalizing influence that made it so. (These are honest texts and show how low, for example, the purple prose can go; it is so low that we don't want too much of it in scientific discourse.)

Wide reading and critical notation helps. Thus, according to Whatmough's *Poetic, Scientific and Other Forms of Discourse* and contrary to Rudolph Flesch's *How to Write, Speak, and Think More Effectively*, the length of a sentence has nothing to do with readability. Walter Pater, critical and eminent scholar, has a masterful style, as do Macaulay and Burke. There are not many short sentences here. What the length of sentence does determine is the author's style, the essence of his individuality. For goodness sake, let's not change this!

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FURTHER, THERE IS VOCABULARY for precision. Without the exact word, which is exactly what a scientific word is, we have all manner of mischief. The *hapax legomenon*, the rare words from glossaries, introduces the unexpected. An abstract word, when the subject is concrete, brings humor; the converse is also true. The poetic word at the expense of the right word is what Governor "Happy" Chandler uses in campaign speeches here in Kentucky, or what Howard P. Rome uses in "Automation Techniques in Personality Assessment," published in *JAMA*, December 15, 1962. In the first instance, and realizing that only about a third of words in writing are efficient anyhow, "Happy" is about 90% Bible. Notice how close Rome comes, in a consistent pattern, to the "Spirit of 1776" and the Constitution.

"The report of the Joint Commission on Mental Illness and Health more specifically and lucidly than any statement on the human needs, rights, and dignity of psychiatric patients in recent years, charges the nation with an obligation to correct the errors of omission and commission on which the welfare of the mentally ill founders."

The latter is a rich source for far-fetched words, circumlocutions, neologisms and false, ugly, or needless formations; it represents the cluttered writing of cluttered thoughts; and, as such, fairly represents the low of "the purple patch."

Also, there is meter or number for the oily ear and the topology for the watery eye, or, as Poe put it, "This oil and water of the ear and eye." Strangely, in writer's hand books and such, there is little edification on rhythm in prose, understandable from the Encyclopaedia Britannica report that it is too controversial to develop more than briefly. In his *The Art of Versification*, however, Poe makes more sense than most. It was our own Oliver Wendell Holmes who noted that the meter of one line is the meter of one breath. This structuring and formalizing of our tongue to meter, like Pope's example below, was also the art of Dryden. Indeed, Johnson, in his *Lives of the Poets*, attributes the title "Father of English Prose" to Dryden for this very reason. Now witness Pope from a section of "An Essay on Criticism."

But most by numbers judge a poet's song,
And smooth or rough, with them is right or wrong:
In the bright Muse, though thousand charms conspire,

Her voice is all these tuneful fools admire;
Who haunt Parnassus but to please their ear,
Not mind their minds; as some to church repair,
Not for the doctrine, but the music there.
These equal syllables alone require,
Though oft the ear the open vowels tire;
While expletives their feeble aid do join;
And ten low words oft creep in one dull line:
While they ring round the same unvaried chimes,
With sure returns of still expected rhymes:
Where'er you find "The cooling western breeze,"
In the next line, it "whispers through the trees."

Now here is consummate art: a poem that gives instruction, illustrates by example, and was itself a major influence, according to Johnson, on the pattern of English. Since Pope's star is again in the literary ascendancy (according to Alexander Cowie, published in the *New York Times Book Review*, September 1, 1963), the purpose he states in his preface to "An Essay on Man" might well be applied to scientific discourse.

This I might have done in prose, but I choose verse, and even rhyme, for two reasons. The one will appear obvious, — that principles, maxims, or precepts, so written, both strike the reader more strongly at first, and are more easily retained by him afterwards; the other may seem odd but it is true. I have found I could express them more *shortly* in this way than in prose itself; and nothing is more certain, than that much of the *force* as well as the *grace* of argument or instruction depends on their *conciseness*.

In giving attention to style, vocabulary and meter, it is interesting that Homer, for the Athenian audience, and Shakespeare, for the English, used large vocabularies. Homer's epic includes the scope of the whole Greek Tradition, while Shakespeare, with a vocabulary of over 14,000 words, surpasses any other English writer in his range. How did they get away with it? Joshua Whatmough claims that repetition is the key; that is, giving a word and redefining it in other terms. Shakespeare is forever qualifying, to our delight and edification. This is analogous, for the edification of writers of scientific papers, to having your precise jargon and eating your poetic phraseology. "Reduce-simplify-condense" are just more nonsense from the "How To Write" authors.

SO MUCH FOR THE ELEMENT of literature; what is its essence? Again Joshua Whatmough and Poe, in his "Art of Versification," come close in their elucidation by



demonstrating "what" and "how" we do it in the first place. In "How to Write a Novel," Unzell comes as close to the essence of literature as most (there are, of course, others, but with them I am not concerned). Unzell states these unalterable (note the word) truths of Aristotle as

test of probability rather than possibility of truth, the unifying effect of the dominating purpose, the importance of portraying character through action rather than exposition, and the nature of the ironic incident.

Noting that these do not express all the essence, he turns to Aristotle's teacher, Plato, who "stated the principle by which all such truths (universal) may be identified." Science has gotten away from this approach. Nevertheless, here lies the essence, though its definition awaits a genius. . . .

Good writing and good scientific discourse depend on universal truths. Tricks and fillets are not the answer. Though I have not collected all the tricks of this trade, my concept of them is wider than a mere admonished "look around for them"; or, worse yet, the advice of Sinclair Lewis at Yale, "Write." To me it has been more helpful to see bad writing than good, because good writing often conceals the art. Particularly before Dryden, there was much experimentation and much bad writing (witness his examples). Next, Johnson took over the good and the bad and, by examples, showed clearly the elements of good poetry and bad. Further, Fowler's *The King's English*, by example, and therefore by demonstration, shows the good and bad of modern writing. After a course through these, the theme for simple plain speech of Quiller-Couch, Glower, Skeats, Abbot, *The Lancet* and, recently in America, White, makes a great deal more sense. "No tricks or deceit in writing, just plain words," they say, but this advice is not simple to follow. Glower's plain style is anything but easy to acquire.

We, who are flooded with superfluities and deadlines, of scientific prose, maintain that the editors fail us. They fail because they do not take into account the subject, which is the content; the theme, which is the purpose; the drama, which is the movement; and the characters, which are the human factors. Simply, these are the truths. I equilibrate this failure of editors with the "anti-intellectualism" (it is not my word) and the dominant "anti-scientific" theme of Davis' "Deadly Medical Prose." Just one supporting fact for this. The same Newton whose "Mathematical Principles of Natural Philosophy," now in my hand as *Great Books of the Western World* also wrote as voluminously on the relation of the Sciences to the Humanities. One very perspicacious author, who noted this disparity of science and the humanities, also asked what the world would be like today if Newton's more humanitarian theme had been pursued as vigorously. Indeed, these later works still remain to be published widely.

I, TOO, HAVE READ AND NOTED the increasingly precise and structured style of the *New England Journal of Medicine* (though this is the best journal being written in America today) and have admired and pursued *Lancet*

which has its mind in the sky but its head on its shoulders. The authors and editors of most journals are more communicative (in person) than in their deadly products (if you prick them, do they not laugh?). Indeed, they seem, like all of us, a product of the formalized scientific form.

It is because of this rigidity, again turning to one of Poe's themes, this rigid, simple character of scientific discourse that "not even Science — not even Pedantry can greatly pervert." It is because of this realization of the nature of medical prose that I would offer these suggestions in the hope that we might spare further travail on medical writing.

One. Understand what scientific, poetic and other forms of discourse are. Modern linguists and philologists like Joshua Whatmough of Harvard, John Draper of West Virginia University (on Shakespeare), and Josephine Miles of the University of California (on vocabulary), seem to be applying mathematics to the problem without the nonsense of some of the more popularized notions of Rudolph Flesch. I (Mr. Lincoln Barnett, cited above, and the *Wall Street Journal's* "Wreckers at Work," published August 27, 1963, to the contrary) have not found these linguists despoilers, nor could I impute any democratic or nondemocratic or socio-economic concepts to them. With the calm, critical and kind treatment of the subject of discourse, Whatmough wipes out the notorious and far more popular Barnett thesis.

Two. Make scientific jargon or, if you prefer, vocabulary, more definite, more structured, more formalized by protocol. The AMA's *Current Medical Terminology* and the less ambitious *Standard Nomenclature of Pathology* are advances (few would admit or understand the reason why). Further, prewritten protocols for clinical abstracts and even scientific papers should be encouraged and advanced (the Joint Commission of Hospitals of the AMA to the contrary). Since scientific discourse is structured (this would not be the *Lancet* style), let us carry it to the limits.

The reason for more protocol and less writing follows from the natural development of George Boole's "An Investigation of the Laws of Thought on Which Are Founded the Mathematical Theories of Logic and Probabilities" (1854), through Bertrand Russell's philosophy, down to our developing cybernetic age with its IBM application. For those who can understand it, this super-language is already here and much of the formalized material of medical writing should fit into it.

Finally. Concentrate on good literature, if we can know what it is, and get science back to the humanities in its discourse. Let the machine take the dull, monotonous protocols. In other words, don't let the *NEJM* become what the machine is. William James, in more than one place, expresses his peculiar melancholic view of science. His last words in the well written *Psychology* mentions our "mental attributes" with his hope that these may be more clearly perceived before "the slowly gathering twilight closes in utter night."

Three Thoughts on General Practice

by David Seegal '28

Responsiveness of the Doctor to the "Little" Duties of Practice

THE FAMILY DOCTOR, greeted at the door by his spouse's lament concerning the burden of *her* housekeeping chores, might counter: "My dear, every day *I* do 5 to 10 times more of it than you." Although the duties of each partner are not strictly comparable, the physician may be guilty of an understatement in his estimate of the number of "big" and "little" orders and procedures which are his daily fare. No matter how glamorous the layman may consider these activities, many of them can be classified as a form of "housekeeping." The "big" responsibilities of the doctor are rarely neglected and are not the subject of this writing; comment is directed, instead, at the often overlooked, so-called "little" jobs in medicine and surgery. In truth, there is no such thing as a "little" responsibility where human protoplasm is involved. An order for an ice bag to the head or a hot water bottle to the feet would seem less important than one for an angiocardio-gram, but their therapeutic measures may more pertinently serve the needs of the patient at that moment.

The myriad of "little," unspectacular duties of the clinician can come as a surprise or even an annoyance to

the clinical clerk and often as a tiresome responsibility for a few young, weary doctors. Paradoxically, the large problems in medicine seem to be handled more efficiently and with more dispatch than the minor demands, which are often neglected, forgotten or delayed. The dramatic quality of the "big" procedure guarantees attention; some of the "little" matters may get lost in the parade of diagnostic and therapeutic management. Most members of the profession come to accept the precept that other factors being equal, the keener their response to the "little" demands of the patient and his illness, the more effective and successful will be their years of practice.

If the "housekeeping" reflex of the doctor is dull, his unresponsiveness to some of the minor details in the care of the patient with such disorders as diabetes mellitus or reversible renal insufficiency invites inadequate treatment. In diseases in which the electrolyte pattern is disarrayed, failure to exhibit the competent housekeeper's attention to minutiae may lead to errors of management. The young surgical assistant, responsible for the collection or checking of the instruments and apparatus required for an operation, is mimicking his wife's labors, as she precisely sets the dishes and silver for the evening meal. His lady's survey of the many household needs of the day and construction of a list of purchases is roughly comparable to her husband's inventory of his laboratory procedures and the orders he writes in the ward book. The efficiency of each is measured by close attention to small details, although one is dealing with things, the other with protoplasm. Pray for the housewife who ordered the steak but forgot the salt; pray also for the young surgical assistant who wrote 15 orders for his patient with anemia but forgot "blood for typing."

David Seegal is presently a professor of medicine at Columbia University and director of its research service at Goldwater Hospital, Welfare Island, New York. He is also co-editor of the Journal of Chronic Diseases.

The Trap of the "Pigeonholed" Diagnosis in Management of the Long-Term Patient

The major portion of the family physician's practice today is devoted to the management of the long-term patient. This responsibility may extend for months or many decades. The clinician, rich in this experience, finds that the presence of one or more diseases, established at the initial visits, offers no immunity to the later development of unrelated disorders. Additional pathology may be detected early, if its appearance is associated with overt manifestations; but delay in diagnosis occurs when the signs are clinically occult. Thus the new disease may become apparent in the patient who has been managed for many years only after it has progressed to a late or irreversible stage. The physician of record is dismayed if the new disorder is one which could have been controlled if it had been discovered by periodic physical examinations or laboratory tests. This unhappy event has probably occurred more than once in the life of the doctor because of the exigencies of practice.

Picture the physician, as he arrives late at his office after a busy period at the hospital clinic. There are two new and three old patients awaiting him. After making apologies for his tardiness, he sees the old patients first, since he assumes that their requirements can be met quickly. Unless he is presented with a new set of symptoms, the clinician, by habit, will mentally relate the patient and his name to his labelled disease. This transference becomes increasingly established with time. When he greets Mrs. Chronos, he visualizes her pigeonholed diagnosis of hypertensive vascular disease; when he shakes Mr. Long's hand, he is thinking of the pigeonholed diagnosis of diabetes mellitus; and when he smiles dourly at Mr. Senior's unfunny joke, he is wondering whether the new drug has helped this patient with the pigeonholed diagnosis of gout. It is only natural that the physician's thinking about each of these long-term patients is directed to the documented disease. Unless overt symptoms or signs of a new disorder appear, it is likely that the physician will spend no more time than is necessary to respond to the demands of the established illness.

The clinician learns that the trust given to him by the long-term patient demands a vigilance beyond that of managing the original illness. Although his diagnosis on the first visits was correct and the therapeutic regimen exemplary; over the years, the busy doctor may be lulled into a comfortable acceptance of the status quo of pathology in his charge. The disciplined physician of record, however, will avoid many of the traps of the pigeonholed diagnosis by adopting realistic methods for the detection of the subtle beginnings of new pathology in the chronically ill under his care. Performance of this duty may benefit the patient and prevent the bitter experiences which each of us has known in the past while hibernating with the original diagnosis.

The Principal of Minimal Interference in the Management of the Elderly Patient

The aged patient constitutes an increasing percentage of the hospital population today. Upon encountering the large number of sick oldsters, the student and house officer should not be surprised to find that care of the elderly presents difficulties not usually met in young patients. These problems are often more closely related to personal idiosyncrasies than to unique physiologic aberrations.

The postdoctoral student, recommending diagnostic and therapeutic procedures for a person of advanced age, will learn that, in general, the older a patient, the less his way of life should be disturbed. Challenge or destruction of long established habits may result in confusion and alienation of confidence. Unlike the young, amorphous personality, which usually can be vigorously molded without danger, the older, more rigid personality is like a crystal, easily shattered by unwise impacts. Awareness of and responsiveness to these facets of the human situation will guide the clinician to the flexibility and nuances so helpful in the management of the aged. Acceding or bending to the seemingly unimportant whims of the elderly rarely harms or interferes with the scientific treatment of the medical or surgical patient.

The nature of the medical profession fosters the doctor's role as an "orderer." He becomes accustomed to a mildly imperious manner. In dealing with the elderly he may become impatient when the oldster insists on taking his special laxative (a nightly act for 30 years) or changing nurses. In many such instances, the physician can gain much by foregoing his luxury, like that of the baseball umpire, of always winning the argument. In the long run, the young doctor, facing the egocentricities of the aged, will find it rewarding to heed symbolically the sign on the highway: YIELD RIGHT OF WAY. unless a major problem of health is involved.

In caring for the elderly patient, the physician or surgeon may find it easier to treat the disease than manage the patient. Dr. Charles Mayo has stated that every young doctor should experience pain in order to develop empathy for his patients with this symptom. It is facetious to suggest that, if the young physician could imbibe a magic potion which would permit him to enter a transitory elderly state, he might come to a better understanding of the aged patient. It is probably only in this manner, however, that he could gain meaningful appreciation of the sick oldster with the quirks, forgetfulness, prejudices, anxieties and the many other manifestations of his egocentricity. In the absence of such a magic potion to produce the experience of a transitory senescence or senility, the young physician must learn to see "old people as they are" and develop a rational and empathic acceptance of the concept that the elderly patient should usually be granted the luxury of his special demands. The young doctor will rarely win his point if he tries to break the long, ingrained habits of the oldster.

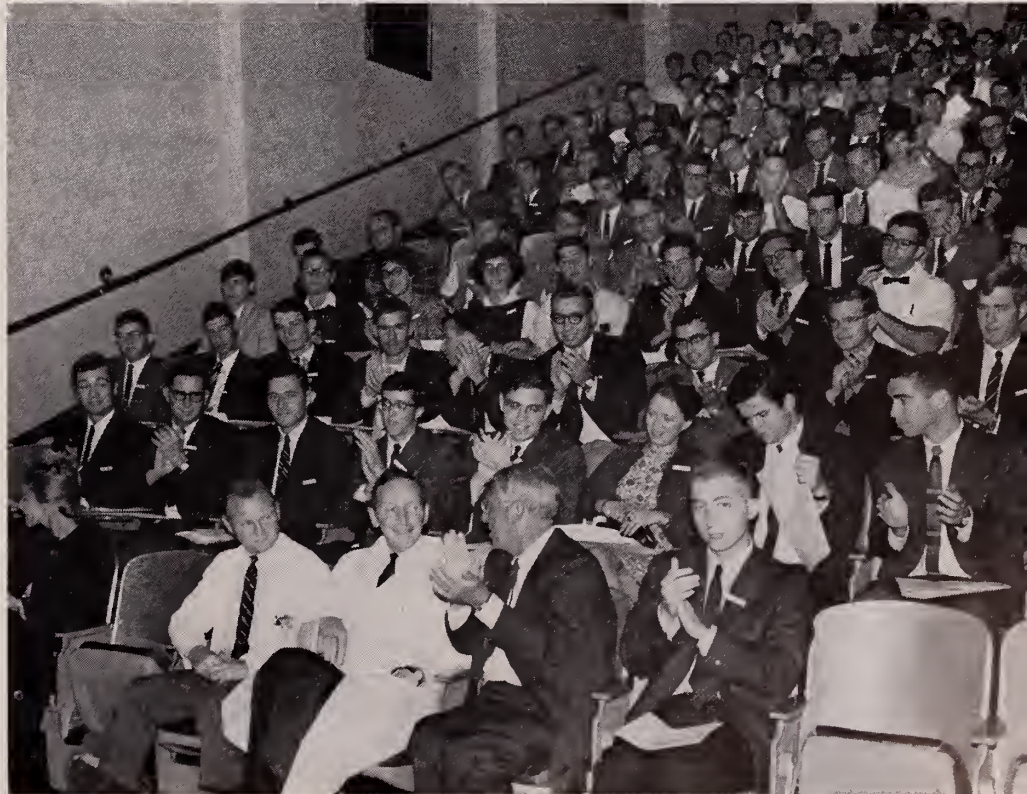


photos by Dave Lawlor

Registration Day: Enter Class of 1967

One hundred and fifteen eager neophytes attend Registration Activities, preparing to take up the staff of *Asclepius*. This year they come from 27 states, the District of Columbia, and four foreign countries — two from Nigeria, one from Canada and another from England.

Though new to the profession they are entering, they come well prepared. Thirty-four in the class of 1967 are members of Phi Beta Kappa, 26 graduated from college cum laude; 30, magna cum laude; 11, summa cum laude; and 15 received either general honors or honors in special fields. Twenty-eight of the entering students graduated from Harvard University.





Dr. Berry



Dr. Culver



Dr. Nichols

Excerpts from Dr. Berry's Remarks to the Class of 1967 on Opening Day

... You are an elite corps — you have been chosen from more than 1,000 applicants. You have come here to share in a unique kind of fellowship. No one can describe it for you adequately; it has to be lived to be appreciated. In your day-to-day work together in the laboratories and later on in the long days and nights you spend together in the wards and clinics of our Teaching Hospitals, you will have a chance to forge the finest friendships you will ever make. One of the greatest challenges each of you will face is to win the respect and liking of your colleagues — this is essential to the close friendships I am talking about.

You will soon realize that others have struggled along the difficult road you will be treading. As a result of the inspiration and the opportunities they have found here, these individuals have become great in the service of ... world-wide medicine. They have penetrated the dark curtain of man's ignorance and superstition; they have fought to conquer disease and — even more important — to prevent disease.

It is now your chance to do likewise. You will find an expectation of excellence here. Remember this "expectation of excellence," for you will encounter it at every turn. Expect it of yourselves, because you will discover that the successful pursuit of excellence demands the most intensive kind of self-discipline. You will learn that medicine is a task-master — the severest task-master you will ever have encountered. We believe that each and every one of you is capable of dealing with the complexities of medical science and medicine. We expect you to succeed.

Now, however deeply immersed you may become in the study of medicine — you will soon be deeply immersed, for medicine is an all-absorbing study — do not fail to take advantage of Harvard's great resources across the Charles River. Remember, you are part of Harvard University, not just of the Medical School.

... What has Harvard accomplished in its 181 years of medical instruction? First, one can say realistically and without arrogance that Harvard has created what is perhaps the world's greatest medical center. The secret behind this fact is that at Harvard teaching, research, and patient care are literally parts of an indivisible triad — each part essential to the others, each contributing to the others, each drawing strength from the others. I can describe the Harvard Medical School as a vast medical institution without walls — the School is related to 20 hospitals, more than a dozen of them are significant Teaching Hospitals.

For example, we are preparing to celebrate next year the 100th anniversary of the Boston City Hospital, the second hospital in the founding of which Harvard played a major role. The first, the Massachusetts General Hospital, was founded in 1811. The Boston City Hospital, founded in 1866, came into being largely as a result of the Civil War. Harvard has had a department of medi-

cine there since the early '20's, centering around the Thorndike Memorial Laboratory and the 2nd and 4th Medical Services. This single Harvard department has an unprecedented record in the production of professors — 317 individuals of professorial rank.

. . . Harvard is also the center of many other activities relating to health — for example, dental medicine and public health. That tremendous crater at the end of Shattuck Street will, in less than two years, become the Francis A. Countway Library of Medicine. The National Library of Medicine in Bethesda, which will be the Countway's closely related partner, is roughly equal in size and function. Soon we shall have available the greatest collection of medical literature available to any medical school. The Boston Medical Library, which was started by Harvard in 1805 but which for most of its subsequent history has been a separate institution, will join the Harvard Medical Library in the Countway. By the summer of 1965 you will be using the superb new facilities.

Think what the Countway will mean to you in the succeeding years ahead. Knowledge in the field of science is doubling every 12 years, according to recent estimates. If knowledge is recorded in books similar to those now used, the 15 million volumes now constituting the Library of Congress will need to total more than 100 million volumes by the end of the present century. The Countway is exploring new methods for storing and utilizing the rapidly growing body of scientific literature. . . .

However important may be the bricks and mortar of the Harvard Medical School, its people are more so. Together the Faculty and Staff now total 2,259 individuals. Adding the pre- and post-doctoral students, the house staffs of our Teaching Hospitals, and the physicians who come to the Medical School from all parts of the world for further study, we have a "student" group of almost the same size. Harvard's "medical family" numbers about 4,500. All of these men and women are dedicated to finding out more about the nature of man in order to provide the knowledge to help him. Thus, you are becoming a part of a learning group of 4,500.

It is a long and difficult enterprise to create a body of physicians similar to the School's 6,000 living, active Alumni. This is an important point to realize in these days when there is such a clamor by the public for more doctors. We have in our Alumni body superb clinicians, scientists, teachers, specialists — every walk of medicine is being followed by those who made the most of their educational opportunities here. No avenue in medicine need be closed to you.

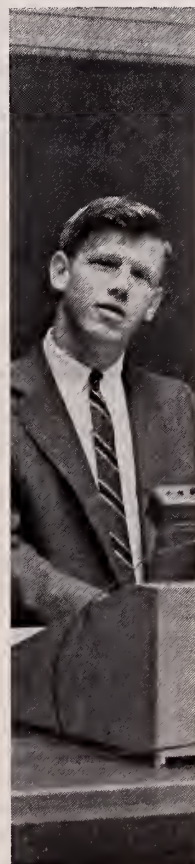
Your immediate problem is to learn — more correctly, to learn how to learn. This is the secret of becoming a life-long student of medicine. It is the only way to become a fine physician. Vast stores of knowledge await you here; they are yours to explore. Although you will certainly worry and fume at times, wondering what it is all about, remember that you are entering medicine at a time when your services will be called upon by society as never before. Remember, too, that an enormous number

of people are investing in you, the Faculty and Staff, the Alumni, your families, and you, yourselves. And although all the people here will try to help you, in the end it all comes down to you. Only you can do the learning.

Today, health is the greatest of all ambassadors, the most enduring form of foreign aid that we can give. The Harvard Medical Center, characterized by the hallmarks of health diplomacy, which one might describe as loyalty, dedication, and faithful service, is an ambassador to the nation and to the world.

Let me summarize much of what I have said in one phrase. Only a healthy America can become more productive and more secure. It will be your job to help make your country more healthy by learning all you can here in the School's laboratories and classrooms, the Library, the wards and clinics, and the operating theaters of the Teaching Hospitals. By learning how to combine the ancient art of healing with the modern art of the scientist, by learning how to fuse the laboratory experience of the pre-clinical years with the actual responsibility of caring for patients, you will realize your objectives in a happy calling. Good luck to you!

Dr. Tucker



Dr. Greep



Mr. Karchmer

Welcoming Remarks by Dr. Greep

It is a real pleasure to greet the class of 1967 on the day that they enter Harvard. I bring special greetings to the new students of Dental Medicine since they are the centennial class — when they graduate, it will be the 100th anniversary of the School of Dental Medicine. You 14 dental students have been chosen from 333 applications . . . we have never had a better class.

Although some of you may already know, I want to tell you why dental and medical students register together. We regard you as a combined class and speak of you without special distinction. You will be associated for the next two years, taking the same instruction, living, working and studying together. Only in the third year will the dental school really become acquainted with you and provide clinical instruction.

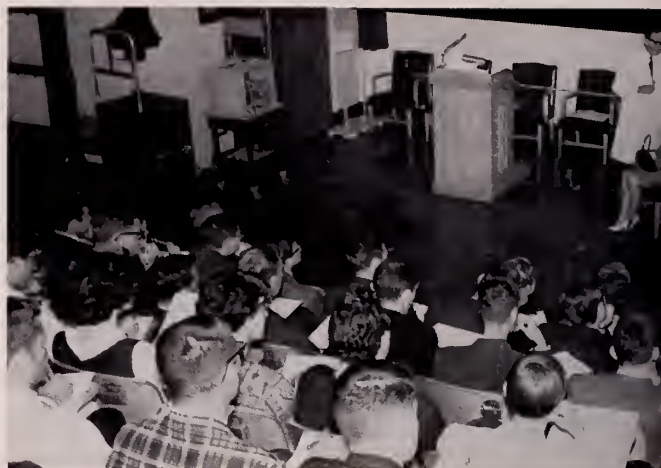
Although I feel called upon to give you advice for these next four years, I am restrained from doing so because of the Chinese story about a traveler and a philosopher who met on a highway one day. The traveler said to the philosopher, "Sir, I have a bird in my hand. Can you tell me whether the bird is alive or dead?" The philosopher thought a bit, surmising that the bird was alive. But he knew that if he said that the bird was dead, the traveler would open his hand and the bird would fly away. If he said the bird was alive, the traveler would crush it. So the philosopher said, "Sir, I cannot give you the answer because it lies in your hands."

What you do with the next four years is in your hands.

Dr. Blumgart's Remarks at His Clinic

. . . I must tell you an anecdote that came to mind when the president of the fourth year class told you this morning that there are two ways to go through the Harvard Medical School: the one by the direct road of prescribed courses and the other, more enjoyable, to take side roads into neighboring fields and not stay only on the beaten track. When in 1869, the first transcontinental railroad system was formed, joining the Central Pacific and Union Pacific Railroads, President Hill then climbed onto the ramshackle locomotive to travel the connecting link for an inaugural jaunt of 5 to 10 miles across the prairie on the rough, hand-hewn wooden rails. The first miles of the trip were very rough, and President Hill was thrown off his seat several times. Suddenly, however, everything seemed to straighten out and ride along smoothly. President Hill said to the engineer, "Say Jim, what's happened — it's going beautifully — everything is so smooth." And the engineer said to President Hill, "Sir, why in hell shouldn't it — we're off the tracks." I would reinforce Mr. Karchner's advice by adding that you will have some of your most pleasant rides when you are off the track.

You may well wonder why a medical clinic should be given this morning, when you have had no medical preparation. But the less one knows, the greater the amount one can learn. I congratulate you on your pre-



sumably complete ignorance, for never again in your entire life will you be in a position to learn so much.

In presenting this clinic we have several purposes in mind; the first is to point out the many disciplines that must be focused simultaneously on the patient who seeks our aid. The field of medicine is so vast and human ability so limited that it has become necessary to break down into fragments, or courses, the many aspects that must be mastered. In your courses here, you will generally appreciate the relationship between the various pieces of the puzzle and see in dim or sharp outline the large, general picture. At other times, however, you will have to proceed on faith in those who have planned your study on the basis of previous experience.

In his lecture on "The Care of the Patient," Dr. Francis W. Peabody said,

The clinical picture is not that of the man sick in bed, but a person who is surrounded by all the joys, hopes, sorrows, frustrations and anxieties that surround all human beings and particularly those who are prone to illness. Patients are people, not diseases.

"I hope you will never lose sight of the patient in the interest of the case — a precept stressed by Professor John B. S. Jackson in his "Introductory Lecture to the Entering Class on November 1, 1848."

Dean Berry had this in mind when he said, "The aim in our teaching program is to accommodate comprehensive medicine without diminishing scientific medicine." The science of medicine is the intelligent and scientific



Class of 1967 participates in its first clinic, conducted by Dr. Blumgart at the Beth Israel Hospital.



Dr. Blumgart began his clinic by demonstrating a pregnant woman of 36 with severe exophthalmic goiter. After describing the signs and symptoms of her disorder, he led an imaginary tour through the various Harvard Medical School departments, indicating the various disciplines necessary to an understanding of this case. Gross anatomy of the thyroid gland and its relation to dysphagia and dyspnoea; histology of the gland; pathophysiology of the thyroid; and the usefulness of radioactive iodine in diagnosis and treatment were pointed out. In this patient the danger of I^{131} to the fetus necessitated control by propylthiouracil. The many emotional problems posed by the illness in the context of the patient's cultural and personal background were described, as well as how these factors modified the treatment.

integration of all the varieties of data into a biological portrait of a single human being. Scientific medicine is our stockpile of knowledge. The art of medicine consists in the skillful and creative application of this stockpile to the needs of the patient.

Since this is your first clinic, I would enjoin you to regard a few points. It is not easy for people to come into a clinic to exhibit their infirmities or abnormalities. Some prefer not to come, and we do not prevail upon them to change their minds. When you see a patient in a clinic, you are joining with whoever gives that clinic in examining and discussing that patient and, as a fellow physician, you will observe the usual amenities.

These include not exhibiting amusement or levity at any time. It means a certain decorum; it means not smoking; it also means, as Dr. Berry has pointed out, that you are committed to absolute discretion about the intimate details you learn here. Remember these two commands, "If thou hast heard a word, let it die with you," and "You must guard your tongue as with a bridle." The information you possess about every patient is not your possession. It is the patient's. If you are asked details about a patient or his illness, you must say you do not know; that is not a lie because it is not your information, it is the patient's and therefore is not to be disclosed.

A final point; you will at all times attempt to be of assistance to that patient before or after a clinic.

. . . In closing, as you leave here and begin your regular assignments, your years here and in the profession will yield ever-new discoveries and exciting insights into health and disease. This will make the pursuit of your profession a continued despair and delight: a despair because of your inevitable shortcomings and a delight because of exciting new revelations. You will always wish you were wiser, you will always wish you knew more. But you are sure to have a rich life — not in material rewards but rich in the pursuit of knowledge, rich in restoring some to health, freeing more from pain, and comforting all who turn to you for help.

And so your life's journey will be full of abiding satisfaction. I wish you all good luck and Godspeed.

CLASS OF 1967

- Aaron, Robert S.
Teaneck, N. J. (Columbia)
- Alden, Kay F.
Cleveland, Ohio (Radcliffe)
- ^dAnapolle, Steven E.
Newton Centre, Mass. (Boston Univ.)
- Arradondo, John E. R.
Altus, Okla. (Oklahoma City Univ.)
- Axelrod, Lloyd
New York, N. Y. (Princeton)
- Bagley, Charles M., Jr.
Duluth, Minn. (Carleton)
- ^dBalaban, Stuart J.
New York, N. Y. (New York Univ.)
- Ballantine, Thomas V. N.
Boston, Mass. (Princeton)
- Berc, Kenneth M.
Roslyn, L. I., N. Y. (Colgate)
- Bernet, Francis W.
Worcester, Mass. (Coll. of the Holy Cross)
- Bleiberg, Mona L.
Maplewood, N. J. (Univ. of Chicago)
- Bonnar, James M., 3d
Middleboro, Mass. (Harvard)
- Brauner, Gary J.
Fairfield, Conn. (Yale)
- Bucknall, William E.
Austin, Texas (Univ. of Texas)
- Bunow, Barry J.
Oakland, Calif. (Univ. of California, Berkeley)
- Burgess, Joan T.
Allison Park, Pa. (Oberlin)
- Chesebro, Bruce W.
Los Angeles, Calif. (California Inst. of Tech.)
- Conger, S. Beach
Pleasantville, N. Y. (Amherst)
- Curry, Edward B.
Besemer, Ala. (Morehouse)
- Daniel, Alan
New York, N. Y. (Amherst)
- Desser, Richard K.
Chicago, Ill. (Univ. of California, Berkeley)
- Diamond, Richard D.
Brooklyn, N. Y. (Brooklyn)
- ^dDick, Douglas S.
Wellesley Hills, Mass. (Yale)
- Dolin, Raphael
Allen Park, Mich. (Harvard)
- ^dDonoff, Robert B.
Brooklyn, N. Y. (Brooklyn)
- Dorman, John M.
Pittsfield, Mass. (Williams)
- Dorner, Douglas B.
Des Moines, Iowa (Amherst)
- Eagleton, Lanie E.
Olney, Ill. (Hamilton)
- ^dElias, Arthur C.
Westbury, L. I., N. Y. (Brandeis)
- Ellman, Leonard L.
Brooklyn, N. Y. (Harvard)
- Erdmann, A. John, 3d
New York, N. Y. (Harvard)
- Fingert, Judith A.
St. Louis, Mo. (Wellesley)
- Funkenstein, H. Harris
Boston, Mass. (Princeton)
- Gail, Mitchell H.
Lexington, Ky. (Harvard)
- Galton, Virginia R.
New York, N. Y. (Univ. of Rochester)
- Gardner, Laurence B.
Lynbrook, N. Y. (Massachusetts Inst. of Tech.)
- Gelb, Lawrence D.
Detroit, Mich. (Univ. of Mich.)
- ^dGoldberg, Norman L.
Newton, Mass. (Brandeis)
- Goldsmith, Philip L.
New York, N. Y. (Cornell Univ.)
- Goldstein, Stanton P.
Ossining, N. Y. (Harvard)
- Gorelick, Kenneth P.
Paterson, N. J. (Rutgers)
- Greene, Andrew F.
Chestnut Hill, Mass. (Amherst)
- Gustafson, James P.
Saginaw, Mich. (Harvard)
- Gutheil, Thomas G.
New York, N. Y. (Harvard)
- ^dHilzenrath, Stephen S.
Kew Gardens, N. Y. (Brandeis)
- Hinds, James W.
Waterville, Maine (Williams)
- Hirschfeld, David S.
Woods Hole, Mass. (Harvard)
- ^dHirschman, Richard D.
Brooklyn, N. Y. (Brooklyn)
- Holmes, Robert H.
Denver, Colo. (Amherst)
- Holt, William S.
Pittsfield, Mass. (Bates)
- Hurwitz, Alfred L.
Brookline, Mass. (Harvard)
- Janeway, Charles A., Jr.
Weston, Mass. (Harvard)
- Jencks, Stephen F.
Towson, Md. (Harvard)
- Johnson, Burt P., Jr.
Ardsley, N. Y. (Harvard)
- Kadish, Lawrence J.
West Orange, N. J. (Princeton)
- Kahn, James B.
Manchester, N. H. (Harvard)
- Kahn, Jesse L.
Brooklyn, N. Y. (Brooklyn)
- ^dKnoettner, Philip V.
Bedford, N. H. (Dartmouth)
- Knopf, Harry L. S.
Trenton, N. J. (Harvard)
- Korshin, Oliver M.
Whitestone, N. Y. (St. John's College, Md.)
- Kourides, Ione A.
Forest Hills, N. Y. (Wellesley)

^dSchool of Dental Medicine

- Kumpe, David A.
Covington, Ky. (Oberlin)
- Kupor, Lary R.
Brooklyn, N. Y. (Brooklyn)
- Landrigan, Philip J.
West Roxbury, Mass. (Boston Coll.)
- Larsen, George K., Jr.
Decatur, Ga. (Emory)
- Lazar, Gerald K.
Brooklyn, N. Y. (Brooklyn)
- Levine, David N.
Los Angeles, Calif. (Yeshiva)
- Levine, Stanley B.
Denver, Colo. (Tufts)
- Lewinnek, George E.
Merrill, Wis. (Carleton)
- Lisanti, Michael J.
Brooklyn, N. Y. (Cornell Univ.)
- Lurie, Melvyn L.
Baltimore, Md. (Johns Hopkins)
- Mabogunje, Olutope A.
Ibadan, Nigeria (Brandeis)
- MacDougal, Bruce A.
Bangor, Maine (Williams)
- Malter, Ira J.
Riverdale, N. Y. (Columbia)
- Meissner, William W.
Buffalo, N. Y. (St. Louis Univ.)
- Mills, Roberta A.
St. Albans, W. Va. (Alleghany)
- Mitch, William E., 2d
Birmingham, Ala. (Harvard)
- ^dMopsik, Edward R.
Forest Hills, N. Y. (Queens Coll., N. Y.)
- Morris, Ira A.
Brookline, Mass. (Boston Univ.)
- Morrison, Peter N.
Great Neck, N. Y. (Columbia)
- Murphy, William M.
Des Moines, Iowa (Drake)
- Murray, Michael J.
Logan, Iowa (State Univ. of Iowa)
- Newhouse, Jeffrey H.
Upper Nyack, N. Y. (Princeton)
- Ogunye, Medrose O.
Lagos, Nigeria (Western Reserve)
- O'Neill, Daniel P.
Roslindale, Mass. (Massachusetts Inst. of Tech.)
- Pasternak, Derick P.
New York, N. Y. (Harvard)
- Perkins, David G.
Belmont, Mass. (Harvard)
- Phillips, Lawrence S.
Washington, D. C. (Swarthmore)
- Pitts, W. Reid, Jr.
Charlotte, N. C. (Princeton)
- Putnoi, Donald W.
Brooklyn, N. Y. (Columbia)
- Reiling, Richard B.
Dayton, Ohio (Univ. of Dayton)
- Rogell, Gerald D.
Newton Centre, Mass. (Harvard)
- Rohde, Jon E.
Barrington, R. I. (Amherst)
- Roth, Gerald J.
Mankato, Minn. (Harvard)
- Rowntree, Ellen M. B.
St. Paul, Minn. (Wellesley)
- ^dRowan, Michael E.
Wellesley, Mass. (Harvard)
- Ruberg, Robert L.
Philadelphia, Pa. (Haverford)
- ^dSande, David L.
Grand Forks, N. Dak. (Univ. of North Dakota)
- Saxbe, W. Bart, Jr.
Mechanicsburg, Ohio (Amherst)
- Schantz, Arthur S.
Brooklyn, N. Y. (Massachusetts Inst. of Tech.)
- ^dScharke, Clifford C.
Jamaica, N. Y. (New York Univ.)
- Schnitker, Paul C.
Toledo, Ohio (Yale)
- Schoolwerth, Anton C.
Glen Ellyn, Ill. (Princeton)
- Shapiro, Daniel W.
New York, N. Y. (Massachusetts Inst. of Tech.)
- Shenkin, Budd N.
Wynnewood, Pa. (Harvard)
- Shulman, Richard S.
Swampscott, Mass. (Harvard)
- Silver, David J.
Bristol, Conn. (Amherst)
- Simmons, Michael A.
Fort Wayne, Ind. (Harvard)
- Simon, Harvey B.
New York, N. Y. (Yale)
- Singer, Karl L.
Huntington Woods, Mich. (Harvard)
- Smith, Donald A.
Little Rock, Ark. (Harvard)
- Smith, Douglas G.
San Marino, Calif. (Pomona)
- Sommer, Alfred
Jamaica, N. Y. (Union)
- Starr, Stuart E.
Los Angeles, Calif. (Pomona)
- Stein, Anna
New York, N. Y. (Barnard)
- Steinman, Ralph M.
Sherbrooke, P. Q., Canada (McGill)
- Stelovich, Steve D.
Cokeville, Wyo. (Harvard)
- Stossel, Thomas P.
Wilmette, Ill. (Princeton)
- Sugihara, Jared G.
Honolulu, Hawaii (Yale)
- ^dSuper, Stuart
Brooklyn, N. Y. (New York Univ.)
- Walker, Pamela P.
Montclair, N. J. (Radcliffe)
- Weiden, Paul L., Jr.
Atherton, Calif. (Harvard)
- Weikel, Anthony M.
Lathrop Village, Mich. (Mass. Inst. of Tech.)
- Weinerth, John L.
Easton, Pa. (Bucknell)
- Weir, Gordon C.
Cleveland Heights, Ohio (Dartmouth)
- Wesley, John R.
Ann Arbor, Mich. (Harvard)
- Wolman, Carol S.
Philadelphia, Pa. (Radcliffe)
- Young, Stephen W.
Angier, N. C. (Univ. of North Carolina)
- Zaentz, S. Donald
Clifton, N. J. (Williams)

BOOK REVIEW

The Body Cell Mass and Its Supporting Environment: Body Composition in Health and Disease. Francis D. Moore, Knud H. Olesen, James D. McMurrey, H. Victor Parker, Margaret R. Ball, and Caryl Magnus Boyden. Philadelphia: W. B. Saunders Company, 1963. XXVI + 535 pp.

In 1946, a brief article entitled "Determination of Total Body Water and Solids with Isotopes" by Francis D. Moore appeared in *Science*. The simple but powerful method of measuring body water and electrolytes by the dilution technique, described in his report, was the basis for most of the contemporary work in this branch of the field of body composition. The present monograph summarizes the studies on body composition in normal subjects and patients carried out in the Surgical Research Laboratories of the Peter Bent Brigham Hospital over the last 15 years and includes a compilation of virtually all the world's literature on this subject. It is remarkable that 18 years from the start of this effort at Harvard, many of the major contributions to this literature came out of this one laboratory, either directly or indirectly via its graduates.

The book consists of two parts and three appendixes: Part I is a detailed description of experimental and statistical methods, a summary of the values obtained in normal adults and an analysis of the statistical relationships between an extensive series of measured and derived parameters that are relevant

to body composition. Part II describes the application of tracer-dilution methods to diverse clinical problems. The appendixes add previously unpublished data on body composition in normal subjects and provide careful instructions on laboratory procedures. The latter should prove especially useful to clinical investigators and new workers in this field.

The authors have given us an assembly of important data on body composition, greater insight into the significance of "compositional" relationships based on statistical methods and an extensive description of the power of "compositional" studies in the clinical arena. The book is unusual in many ways, in addition to the obvious fact that it is now the prime reference source on this area of biological science. Few authors attempt to introduce new data and concepts in a large book, usually preferring to present their wares in the smaller showcases provided by the journals. New data and revised methods of extracting information from them are in abundance in the present work. The method of estimating skeletal weight from isotope data and the introduction of parabolic equations in the description of normal values are noteworthy examples. Another unusual feature I particularly enjoyed was the sturdy independence of mind shown in chapter headings and in style. For example, Chapter 12 is entitled "Summary Without Conclusions" and subtitled "Being an Attempt to Gather Together Summarizing Concepts Usually

Placed at the End of Each Chapter."

This book is important to the sub-set of physiologists concerned with fluid volumes, electrolyte concentrations and distribution of elementary ions. It also pioneers in the vast area of clinical applications of such measurements. The substantial forward progress which has been made, however, raises new problems that will have to be met. Before discussing these problems I will voice the few criticisms I have to offer. The authors carefully point out the possible statistical fallacies in small populations and also present regression relationships in small groups (e.g., the data in Figure 36 are based on 7 observations). Unless he is wary, the reader may place more confidence in these data than is intended by the authors, who clearly indicate the low significance level in the small groups, but who have included the data for later reference.

I have to dig in my heels when it comes to accepting derived estimates of "average intracellular potassium concentrations" and "intracellular water content" and their regression relationships with many other parameters, especially when these estimates are extended to grossly abnormal states (e.g., Figure 78). I know of no combination of dilutional methods for inferring the quantity of intracellular constituents free of significant "contamination" with extracellular fluids of various kinds. For example, correcting the bromide space for red cell content of bromide does not insure an accurate estimate of intracellular water content under all circumstances.

The operational definition of intracellular constituents leaves something to be desired, since the regression relationships cannot be interpreted unambiguously.

The new problems one can foresee — in part owing to the successful acquisition of quantitative detailed information — are of three kinds. Since it is now possible to make extensive measurements in the analysis of the metabolic state of patients, the clinical investigator can accumulate a bewildering array of numbers. This abundance of data emphasizes the need for automatic methods of extracting the significant information or for the development of unifying principles that will limit the detail necessary for an adequate description of the pathophysiological event. The second problem brought out by this work is the vexing question of how to bridge the logical gap between average normal values and the findings in any one patient. Fortunately, many of the cases were studied serially; in others, however, the authors took the statistical gamble of drawing inferences from comparisons with normal standard values. Finally, there is a need to bring together the well-developed body of work on physiological pathways and mechanisms which is at hand and the detailed information obtained from studies on body composition.

Moore, Olesen, McMurrey, Parker, Ball and Boyden expended much well-directed energy in the construction of this work. The result stands as a challenge to their confrères to find ways of extending the contributions of Moore *et al.*, of opening new avenues

that will lead to greater understanding of the mechanisms controlling body composition and of applying this body of information in the routine care of patients.

ISIDORE S. EDELMAN
PROFESSOR OF MEDICINE AND
PHYSIOLOGY OF THE UNIVERSITY
OF CALIFORNIA AT SAN FRANCISCO

The Growth of Medical Thought.
Lester S. King. Chicago, Illinois:
University of Chicago Press, 1963.
IX + 254 pp. \$5.50.

It is time that medical history be approached as a kind of intellectual history — that is, with an emphasis on the ideas from which the behavior of medicine is derived. Of course, the way in which man understands disease is a function of his concept of the world — or philosophy — and the evolution of scientific concepts has in turn affected philosophical concepts. The history of medicine up to this time has been too much the history of this or that disease, biographies and histories of medical activities in particular locales. It is time that medical historians join the serious ranks of the historians of science and study the shifting conceptual patterns of medicine, and the factors influencing these changes.

It was with great expectation, then, that we read this book which is divided into a Prologue and Epilogue, and five chapters.

I. From Religion to Science:
Apollo, Asclepius, and Hippocrates

- II. Sophistication: Galen, the "Faculties," and the "Problem of Change"
- III. The Philosophic Approach: Paracelsus
- IV. Progress and Pitfalls: Versalius, Harvey, and Hoffman
- V. Cell Theory, Key to Modern Medicine: Boerhaave, Schwann, Rokitansky, and Virchow

The approach of this book is summarized by Dr. King as follows:

Choosing a few individuals who represent trends in intellectual history, I have tried by episodic treatment to indicate the growth of medical science and the patterns of medical doctrine. I have tried to place in perspective the critical spirit and sound method that good physicians have displayed throughout history, and also to show the pitfalls that beset even the wisest.

So, this is not a history of medical thought. It is rather a group of "historical biopsies," analyzing the conceptual framework of certain men from the "modern" viewpoint. This gives the book a fuzzy, scattered, ruminative quality. The best chapter is that on Paracelsus. There is little mention of the great French School of Medicine or the Naturoposophie School. Freud does not appear at all.

This book would be useful as an introduction to the history of medicine, accompanied by readings from Shyrock, Temkin and Sigerist. We wait for a true history of medical concepts.

G. E. GIFFORD, JR.

HONORS

Daniel C. Gajdusek '46, of the National Institute of Neurological Diseases and Blindness, National Institutes of Health, Bethesda, received one of the 1963 E. Mead Johnson Awards for Research in Pediatrics at the annual meeting of the American Academy of Pediatrics this fall. Dr. Gajdusek, who is director of the NIH study of child growth and development and disease patterns in primitive cultures, was granted the award for his studies of

children in primitive cultures and virus diseases around the world.

David Gitlin, assistant professor of pediatrics, has been presented the 1963 Borden Award of the American Academy of Pediatrics, at its annual meeting in Chicago this fall. The award, granted for outstanding achievement in research relating to infant nutrition and/or development of infants and children, went to Dr. Gitlin for his work in protein metabolism, cell formation and immunity. He has carried out this research at Children's Hospital Medical Center, where he is a member of the staff.

Trygve Gundersen '26, lecturer on ophthalmology at the Massachusetts Eye and Ear Infirmary, has been awarded the Howe Medal of Ophthalmology by the American Medical Association.

Herman M. Kalckar, professor of biological chemistry at the Massachusetts General Hospital, has been awarded the Saunders 75th Anniversary Writing Fellowship by W. B. Saunders Co., Publishers. Dr. Kalckar is one of two to receive this \$15,000 grant, which gives an eminent investigator one year's leave of absence to think about and bring to print the results of his research. He plans to write on "The Biological Patterns of Cells in Developmental Defects and Disease States." The award is designed to give investigators more time for communicating their research.



Dr. Kalckar

Shields Warren '23, scientific director of the New England Deaconess Hospital's Cancer Research Institute and professor of pathology at the N.E.D.H., has been named a recipient of a citation from the Atomic Energy Commission. For many years considered one of this country's leading authorities on atomic radiation, Dr. Shields is being honored for his "Meritorious contribution to the United States Nuclear Energy Program as the U.S. representative to the United Nations Scientific Committee on the Effects of Atomic Radiation, 1955-1963." Dr. Warren is the fifth person to receive this citation.



Dr. Gitlin

Alumni Notes

1907

William J. Brickley celebrated his 90th birthday this year, in the company of his friends at an informal luncheon at the Harvard Club.

1910

Leo W. Bortree writes, "one of the best things that ever happened to me was to be associated with that brilliant group of men. They were wonderful to me . . . My regards to any of the old bunch."

Alexander M. Burgess has been full-time director of medical education at Miriam Hospital, Providence, R. I., since January 1. In February he was elected president of the Association of Hospital Directors of Medical Education.

1912

McIver Woody very proudly announces the graduation of his daughter, Emma I. Woody, in the N.Y.U. class of 1963. She represents the third generation of M.D.'s in the Woody family.

1915

As of last June Harold Thomas has resigned as chief of the department of radiology at Albany Veterans Hospital. "Both hale and hearty after 30 years' interest in the Chinese people and 12 years with veterans of foreign wars. We pause for identification before fresh fields and pastures green!"



Emma and McIver Woody

